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QUANTITATIVE PROCEDURE FOR POSITION IDENTITY DEFINITION

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(U) GENERAL RESEARCH CORP MCLEAN VA MANAGEMENT SYSTEMS

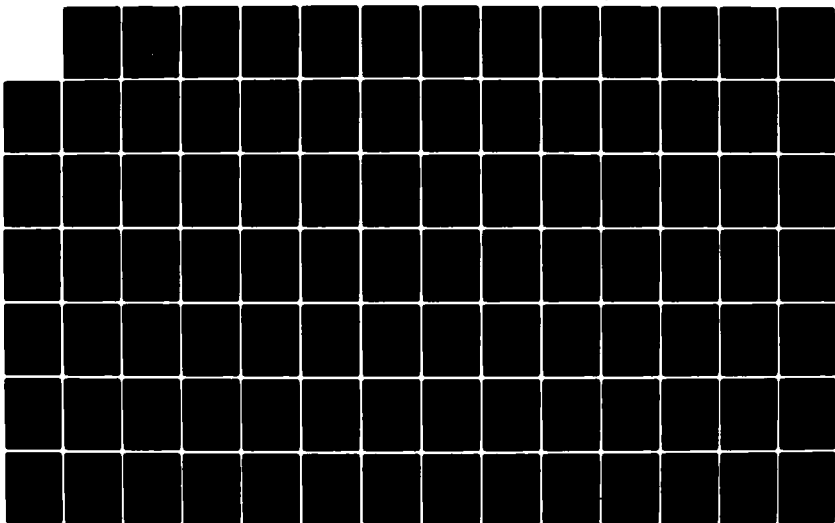
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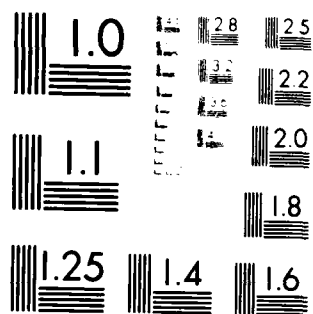
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Report 1165-02-81-CR

TECHNICAL REPORT 002AE

Final Report

Quantitative Procedure for Position Identity Definition

CONTRACT NUMBER..... MDA903-80-C-0324 (MOD. No. P00001)
CONTRACT EXPIRATION DATE..... 31 July 1981
SHORT TITLE OF CONTRACT WORK..... QUANTITATIVE POSITION IDENTITY
NAME OF CONTRACTOR..... GENERAL RESEARCH CORPORATION
CONTRACTOR'S PROJECT DIRECTOR JACK I. POSNER
PHONE NUMBER..... (703) 893-5900 (X698)

31 July 1981

The views and conclusions contained in this document are those of the author and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Army or the United States Government.

MANAGEMENT SYSTEMS DIVISION

GENERAL
RESEARCH  **CORPORATION**

A SUBSIDIARY OF FLOW GENERAL INC.
7655 Old Springhouse Road, McLean, Virginia 22102

Submitted To:

Department of the Army (ODCSPER)
Attn: DAPE-MBU
The Pentagon
Washington, D.C. 20310

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20. in a Handbook of less than 35 pages written at slightly above the 12th grade reading comprehension level. The method was fully validated through a survey and broad field test using a representative sample of positions and a suitably qualified and stratified group of testers. The Handbook is designed for Army-wide use and is ready for distribution.

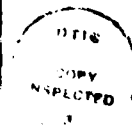
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SECTION 1
BACKGROUND AND OBJECTIVE

THE NEED

A fundamental need exists for a simple, consistent, objective method of properly identifying each active Army manpower position for commissioned officer, warrant officer, enlisted, or civilian incumbency. That need is predicated upon the overriding demand within the Executive and Legislative Branches for equally consistent, understandable, and provable methods of justifying armed forces manpower--a costly commodity in short supply. That demand faces each of the military departments. It is not unique to the Department of the Army, but did receive explicit attention in Chief of Staff Memorandum 76-570-62, subject: Determination of Officer Requirements, dated 3 December 1976:

The criteria which differentiate positions between commissioned, warrant, enlisted or civilian are key.... Review and improve procedures whereby each position is defined as being filled most efficiently by either an officer, enlisted man, (or) civilian....

The need for improved methods and procedures has grown more compelling with the passage of time, commensurate with the escalating cost and increased demands imposed upon the Army's manpower resources.

GRC'S PRIOR WORK TO MEET THE NEED

Responding to this pressing need, GRC completed contract work in December 1979, dedicated to the following objective:

Devise an improved, quantitative methodology for establishing each position in the active Army's structure properly as commissioned officer, warrant officer, enlisted, or civilian.

No fully satisfactory quantitative technique for determining position identity had previously been developed by any Defense component. Giving due consideration to the judgmental, policy, and managerial constraints involved, GRC developed a conceptual methodology combining both decision-logic and quantitative steps in an identity-determination

construct. Positions as opposed to incumbents (that is, "spaces" as opposed to "faces") in the active Army structure constitute the basic building blocks of the GRC method. That method adapts contemporary factor-comparison job analysis techniques to the allied task of manpower category (i.e., commissioned officer, warrant officer, enlisted, civilian) analysis. The process first establishes an unconstrained ideal identity for individual positions. As necessary to accommodate real-world constraints (e.g., overseas rotation policies, career progression needs by manpower category, availability of authorizations by manpower category, and budget end-strength mandates) a preferred alternative identity may then be determined for affected positions.

The product of GRC's prior work was a draft Position Identification Handbook prepared in the form of a proposed numbered Department of the Army Pamphlet. The Handbook provides Army manpower managers and technicians with the required tools in a single document to properly designate each active Army position by manpower category using the combined decision-logic/quantitative methodology.

All of the work leading up to the development of that draft Handbook, as well as the Handbook itself, is detailed in the final report, Quantitative Procedure for Position Identity Definition, Report 1071-01-79-CR, General Research Corporation, December 1979. That document is incorporated here by reference.

OBJECTIVES OF GRC'S CURRENT WORK

To validate the December 1979 draft Position Identification Handbook, our prior work culminated in a demonstration test of the new methodology conducted by representatives of the Survey and Standards Division (DAPE-MBU), Directorate of Manpower, Plans and Budget, Headquarters, Department of the Army, the sponsor of this contract effort from the outset. Results of the demonstration test are detailed in GRC's previously cited final report, dated December 1979, and supported the following conclusions:

- The procedure is sufficiently simplistic to be used by manpower managers at all levels with minimum training.
- Application of the procedure does attain a consistent identity for positions in the Army force structure.

The principal recommendation based upon these conclusions is set out below:

- Complete an expanded and detailed test process to permit final validation and refinement of the position identification methodology prior to Army-wide implementation. The objective of the expanded test procedure would be to ensure that the numerical values assigned to the subfactors used in quantitative evaluation of position identity have the capability to discriminate adequately among alternative position identities when applied Army-wide. The test could also serve: to confirm application of the method to the Reserve Components, to refine position identification factors/subfactors, to further simplify methods and procedures, and to generally improve these innovative processes.

In consonance with the content of this recommendation, our work under Contract Number MDA903-80-C-0324 (effective date 12 March 1980) as amended by Modification Number P00001 (effective date 1 March 1981) was dedicated to the following objective:

- Test and refine position identification factors and application techniques previously developed and assess the impact of the methodology on MACOM manpower programs.

Section 2 of this report details how the tasks prescribed for achievement of this objective were executed.

SECTION 2

FINAL DEVELOPMENT OF THE QUANTITATIVE POSITION IDENTIFICATION METHODOLOGY AND HANDBOOK

Begun in March 1980, the current effort was explicitly designed to test and refine the position identification factors and application techniques previously developed by GRC, thus bringing the methodology and implementing Handbook to a level of quality and utility suitable for Army-wide implementation. From the outset, the DAPE-MBU project sponsors and their GRC counterparts recognized that the best measure of attainment of that level of excellence would be the demonstrated support of interested ARSTAF and MACOM authorities who had complete technical and practical visibility into the methodology and the implementing Handbook. Accordingly, a Study Advisory Group (SAG) was formed by DAPE-MBU composed of ARSTAF Agency and MACOM representatives having vital interests in this project. The SAG was provided with full documentation and detailed progress briefings from project inception through its conclusion. ARSTAF and MACOM inputs were solicited and were made throughout the period of project execution, both orally and in writing. SAG input and guidance was an important element in bringing this undertaking to a successful conclusion.

PROJECT TASKS

The governing contract (No. MDA903-80-C-0324) as modified on 1 March 1981 (Modification No. P00001) called for the execution of three primary tasks to bring the methodology and the implementing Position Identification Handbook to a point immediately preceding Army-wide implementation:

- Apply the lessons learned through GRC's prior initial work.
- Refine and validate the Handbook through:
 - A survey and expanded field test designed to adequately assess the methodology as a prerequisite to Army-wide implementation.

- Close coordination with the SAG and the Army Research Institute. (ARI held a seat on the SAG from inception of the current effort, as well as throughout the period of GRC's initial prior work.)
- Within available contract resources, assist DAPE-MBU in developing an Army-wide implementation plan.

The first two tasks enumerated above absorbed the vast bulk of time and effort expended in bringing GRC's innovative position category identification system to fruition. Their execution and the attainment of their stated objectives were marked by the following milestone documents delivered to the Department; the first two of these are incorporated herein by reference; the third is reproduced in Appendix A for clarity and completeness.

- Revised Draft Position Identification Handbook, Report 1165-01-80-CR, GRC, 15 August 1980.
- Expanded Field Test Plan, Report 1165-02-80-CR, GRC, 15 October 1980.
- Final Draft-Position Identification Handbook, Report 1165-01-81-CR, GRC, 15 June 1981.

Succeeding paragraphs summarize task execution, with extensive supporting detail included in the Appendixes to this report. As previously indicated, the first two of the above-cited milestone documents already delivered to the Department are not reproduced herein, but are incorporated by reference; their duplication as a part of this report would be unnecessarily redundant.

APPLYING THE LESSONS LEARNED THROUGH GRC'S PRIOR WORK

The practical objective of the initial task of the contract effort described in this report was to apply the accumulated experience of interested Army authorities and the GRC Project Team which developed the quantitative position identification methodology, in order to:

- Revise the initial drafts of the Position Identification Handbook at an "easy-to-read" level of understanding.
- Refine, simplify, and clarify the factor and subfactor definitions in the Handbook to assure a comprehensive and accurate user perspective leading the user to the correct delineation of positions.

Regular meetings of DAPE-MBU and GRC representatives with the editorial staff of the Adjutant General's Office (TAGO) were held in March, April, and May of 1980. In addition to participating in the revision of narrative content, TAGO editorial staff suggested selective revision of Handbook decision-logic tables, and selective revisions were made by the GRC Project Team. In the final analysis, the Handbook "easy-read" and simplification effort produced a document suitable for use by individuals slightly above the twelfth grade reading comprehension level.

Extensive exchanges in the course of SAG meetings confirmed the broad interest at both ARSTAF and MACOM level in the content and methodology of the Position Identification Handbook. Separate discussions attended by DAPE-MBU representatives and all members of the GRC Team were held with DAPE-CPP in April 1980, with reference to the special interests of the Directorate of Civilian Personnel in these matters--particularly certain factor/subfactor definitions contained in the Handbook covering the categorization of positions associated with commercial/industrial activities or based on tradition and/or custom. Inputs, comments, recommendations, and suggestions of other functional and activity authorities at ARSTAF and field level were essential to fully achieve the goals and objectives established for this effort. Responding to those inputs, the GRC Project Team submitted informal revisions of the Handbook to DAPE-MBU and the SAG in June, September, and December of 1980--in addition to the previously cited formal Handbook revisions submitted on 15 August 1980 and 15 June 1981.

Appendix B illustrates the content, direction, and exhaustive nature of ARSTAF/MACOM input to the Handbook development process and the item-by-item review and assessment coverage afforded to those inputs. The GRC document dated 3 September 1980 comprising Appendix B constitutes a summary of perceived deficiencies and criticisms tabled Army-wide in response to a formal request for such input from DAPE-MBU. That document was subsequently presented and briefed by GRC through the SAG, with representation from essentially all interested agencies. The review conducted by the SAG and ARSTAF/MACOM representatives participating was exhaustive. Each criticism was either fully resolved or resolved on an interim basis to the point that the Handbook development process could proceed, without delay, to the point immediately preceding Army-wide implementation. That point has now been reached. The Final Draft Position Identification Handbook, submitted 15 June 1981 (see Appendix A), represents the synthesis of all project inputs received since inception.

REFINING AND VALIDATING THE METHODOLOGY THROUGH FIELD TEST

Final refinement and validation of the quantitative position identification methodology and the implementing Handbook was achieved through an expanded and detailed test. The first key step required development of a detailed test plan and test procedure looking toward a broad field test of a fully representative sample of selected active Army positions. GRC perceived the field test as a two-part process, the first part requiring a thorough survey of knowledgeable Army representatives regarding factor/subfactor content, scoring, and weights. The second part of the process was seen as an expanded field test involving direct MACOM participation, force structure and geographic diversity, a carefully selected group of sample positions broadly representative of the active Army spectrum, and selection of a properly qualified and stratified group of testers.

Survey of Position Identification Factor/Subfactor Content, Scoring, and Weights

The survey instrument, the GRC analysis of potential survey sites, and the GRC rationale and plan underlying the survey approach are detailed in Appendixes B, C, and D of the previously-cited GRC Expanded Field Test Plan delivered to DAPE-MBU on 15 October 1980.

Based on the GRC analysis of potential survey sites, as conditioned by the views of participating commands and the availability of personnel and of travel funds, the following survey schedule had been developed and approved for planning purposes in September 1980:

<u>Date</u>	<u>Location</u>	<u>Participants</u>				<u>% of Participation</u>
		<u>OFF</u>	<u>ENL</u>	<u>CIV</u>	<u>TOTAL</u>	
6 Oct. 80	MDW					
	USA C of S	0	0	1	1	
	DA DCSPER	2	0	5	7	
	DA DCSCPS	2	0	2	4	
	DA Surgeon Gen.	0	0	1	1	
	DA Comptroller .	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	
		4	0	10	14	11.2
7 Oct. 80	DARCOM . Alexandria, VA*	1	0	33	34	27.2
8 Oct. 80	TRADOC					
	Ft. Monroe, VA	4	4	19	27	
	Ft. Eustis	1	1	8	10	
	Ft. Belvoir*	<u>0</u>	<u>0</u>	<u>3</u>	<u>3</u>	
		5	5	30	40	32.0
10 Oct. 80	FORSCOM					
	Ft. McPherson	<u>6</u>	<u>5</u>	<u>26</u>	<u>37</u>	29.6
	TOTAL	16	10	99	125	100.0

*Ft. Belvoir participants from TRADOC were to participate at DARCOM Headquarters on 7 Oct. 80.

This schedule contemplated participation by the USA Support Training Center, Ft. Eustis, and the USAG at Ft. Monroe and Ft. McPherson. All surveys were to begin at 0830 on the date scheduled. Key GRC and DAPE-MBU personnel were to administer all surveys. A standardized script was to be employed by the administrators in briefing survey participants. For a number of time and resource reasons beyond the control of test administrators, the FORSCOM survey scheduled for 10 October 1980 at Ft. McPherson had to be administered by a FORSCOM representative; to the extent possible, the standard survey procedures used at the other three locations were employed at FORSCOM.

Appendix C presents in detail the results of the survey, including the GRC recommendations based upon analysis of those results. Reviewed in detail with DAPE-MBU representatives, and presented in both the written form shown in Appendix C and in an item-by-item GRC briefing to the SAG on 9 December 1980, the recommendations contained in Appendix C were approved. A version of the Handbook revised to implement those recommendations was delivered by GRC to DAPE-MBU in December 1980, and that version was used in the expanded field test addressed in succeeding paragraphs.

Expanded Field Test and Validation

Seen as the final methodology/Handbook validation step, the expanded field test was planned and programmed with commensurate care. Test plans and procedures are detailed in the body and selected appendixes of the previously cited GRC Expanded Field Test Plan, delivered to DAPE-MBU on 15 October 1980.

The expanded nature of the field test plan decided upon by DAPE-MBU contributed significantly to the quality of the test and validation process. It concurrently created some time and resource availability impediments, resulting in the decision to reduce the size of the field test administration team to a single DAPE-MBU representative.

The final configuration of the expanded field test conducted in January/February 1981 is detailed in Appendix D, together with a comprehensive analysis of expanded field test results:

- As outlined in Appendix D, voluminous data summaries and related products in computerized format were prepared using GRC's in-house Cromemco micro-computer; and all test results were also entered on keypunch cards for possible future use by the Army Research Institute. These materials were delivered to DAPE-MBU on 5 May 1981 and are not reproduced here because of their bulk.
- The full content of Appendix D was briefed to the SAG on 24 June 1981 at the Pentagon. The formal portion of the presentation was made by the GRC Project Director, with the proceedings being chaired by the Chief, DAPE-MBU. Each of the many issues detailed in Appendix D were examined. Selected additional analyses were made during and after the presentation in response to SAG member questions. Appendix E contains one such response of special interest.

The SAG supported the general conclusions reached in Appendix D that:

- The tabulations of test results demonstrate a consistently high level of consensus by testers in applying the Handbook methodology and in reaching compatible identification decisions.
- The notably low tester error rate approximating 1% of all tester results demonstrates the relative simplicity and comprehension level of the definitions, techniques, and methods prescribed in the Handbook.
- The changes incorporated in the 15 June 1981 Final Draft-Position Identification Handbook accommodate Handbook deficiencies uncovered as a result of the detailed tests and analyses conducted.

The last mentioned changes were developed by the GRC Project Team based upon detailed analyses of test results, and upon the following proposed conforming amendments to Army Regulation (AR) 570-4 (presently under revision) developed by GRC in close collaboration with DAPE-MBU representatives:

RECOMMENDATIONS

REVISIONS TO DRAFT ARMY REGULATION 570-4

(Para. 4-3) Guidance for Position Identification. As used here, position identification means the designation of a position as military or civilian; and, if military, the further designation of the position as either a commissioned officer, a warrant officer, or an enlisted authorization. Accurate definition of the work requirements associated with an individual position is essential to accurate position identification. The factors and subfactors upon which that position identification decision is based must include an accurate description of: the duties which must be performed; the responsibilities which may be exercised; the conditions of employment (i.e., actual or potential exposure to hostile fire, geographic or physical location and environment, work hours, and other conditions related to the tasks and subtasks which must be performed); and the level of employment (i.e., the level of executive or managerial skills needed, the technical skills and knowledge needed, level of the position within the organization, and other characteristics of the work which must be performed). The official position description and/or the military occupational specialty (MOS) or specialty code (SC) description are the principal tools used to detail these position factors and subfactors. Proper evaluation of all of these elements, and application of the policies detailed below, will result in accurate delineation of the ideal identity for each authorized position.

(Para. 4-4) Effective Manpower Resource Management. The fundamental purpose of each Army position authorization is to support the nation's defense posture. Factors such as the limited

availability of scarce military or civilian manpower authorizations within the totals allocated by the Congress and the Office of the Secretary of Defense require that HQDA determine, or participate in determining, the position identification requirements for selected authorizations to assure effective Army-wide manpower resource management. Identification requirements for many of these positions fall under programs which cannot be managed exclusively in the field because they require access to total force data. MACOM-wide or unit-wide data will not suffice. Total force management requirements of peacetime operations while maintaining combat readiness may require alternative identification of selected positions, rather than the ideal identification based solely upon the factors discussed in paragraph 4-3, above. The position identification decision process in these cases will be based upon the following policies, as supplemented by explicit written guidance provided to the field by HQDA.

a. Rotation Base Requirements. Selected positions will be delineated as military to assist in providing military personnel a minimum CONUS tour between overseas assignments. HQDA will provide written instructions by skill and number for Assisted Space Imbalanced MOS (SIMOS) and comparable officer positions.

b. Career Progression Requirements. Selected positions will be delineated as military to assist in providing balanced and reasonable promotion flow and career progression. HQDA will provide detailed written instructions.

c. Pretrained Contingency/Wartime Augmentation. Selected positions will be delineated as military to provide immediately deployable pretrained personnel for the contingency/wartime augmentation of combat, combat support, or combat service support TOE units. These requirements will be determined by HQDA and allocated in periodic formal communications.

d. No Qualified Civilians Available. Some TDA positions, not otherwise requiring military incumbents, are dedicated to functions which must be performed by government personnel, but no qualified civilians are available. Military incumbency will be prescribed for these positions, provided that:

(1) All reasonable efforts have been made locally to recruit qualified civilians.

(2) Within 12 months after initial designation for military incumbency, HQDA formally confirms qualified civilians from other geographical areas are not available. Normally, foreign national direct hire and US direct hire categories are interchangeable. If the local labor market in an overseas area cannot supply the required skills, the recruitment of civilian applicants from the CONUS must be considered.

(3) Conversion to civilian incumbency will be effected when qualified civilians do become available, in accordance with paragraph 4-5, below.

e. No Warrant Officer MOS Available. These are positions which should properly be identified for warrant officer incumbency, but require skills for which a warrant officer MOS has not been established by HQDA. Commissioned officer incumbency will be prescribed for these positions and the following action will be taken:

(1) Prepare a written summary identifying the position by organization, TDA, paragraph, line, CCNUM, EDATE, and position description. Include a concise summary of the duties assigned to the position.

(2) Forward the written summary to Soldier Support Center, National Capital Region, ATTN: ATZI-NCR-MO-0, 200 Stovall Street, Alexandria, VA 22332. The material will be used by the Soldier Support Center, National Capital Region, to develop a data base with which to evaluate the need for future establishment of a new, or possible revision of an existing warrant officer MOS, Additional Skill Identifier, or Special Qualification Identifier.

f. No Unallocated Manpower Resource Available. Military and civilian manpower authorizations for DA are allocated annually by the Congress and the Office of the Secretary of Defense. The process is described in Chapter 2;

as specified in paragraph 2-2b, above, HQDA in turn allocates all available civilian and military spaces to MACOMs and agencies. It is recognized that military or civilian manpower resource limitations and ceilings may not always allow delineation of the ideal identity for all positions. In such cases, the following policies will apply.

(1) The MACOM or agency concerned will make every effort to provide the required military or civilian authorizations from within MACOM allocations to allow delineation of the ideal position identity.

(2) Where insufficient MACOM resources are available to allow delineation of the ideal position identity, military positions in TDA organizations may be designated as civilian, or civilian positions may be designated as military, in strict compliance with the following:

(a) Existing positions presently delineated in their ideal identity will not be redesignated in an alternative identity, except for the reasons stated in paragraphs 4-4a through e, above.

(b) New or existing positions not previously delineated in their ideal identity, and not eligible for delineation in an alternative identity under paragraphs 4-4a through e, above, may be delineated in an alternative identity on an interim basis and in accordance with the rules prescribed in the following subparagraphs. (NOTE: Positions which by law or regulation require a military or civilian incumbent must be so designated; they may not be delineated in an alternative identity under the following rules.)

(c) The MACOM commander or his designated representative must determine that the individual position(s) cannot be eliminated; that filling of the individual position(s) cannot be deferred; and that their interim delineation will make the best use of available manpower resources.

(d) Termination of the interim alternative delineation of the individual position(s) must be programmed by requesting the necessary manpower resources through HQDA as a POM reprogramming

action. In the case of large-scale reprogramming needs, it may be necessary to spread the reprogramming action over the program years in the interest of balance and flexibility. Interim alternative position identities will be retained in authorization documents until the planned conversion year. When the necessary reprogrammed manpower resources become available, conversion to ideal position identities on a permanent basis will be effected in accordance with paragraphs 4-5 and 4-6 below.

Substantive changes in DA manpower management policies and procedures are incorporated in these proposed changes to AR 570-4. In significant measure, the pressing need for these changes was articulated by key segments of the Position Identification Handbook and the fundamental principles upon which Handbook development was based. Achievement of their objectives now depends upon an effective Handbook implementation plan executed by DAPE-MBU and the ARSTAF in collaboration with their MACOM counterparts.

ASSISTING DAPE-MBU IN DEVELOPING AN ARMY-WIDE IMPLEMENTATION PLAN

Very limited contract resources were made available for GRC assistance to DAPE-MBU in developing the Army-wide implementation plan. In executing this phase of its work, the GRC Project Team has participated with DAPE-MBU during the closing weeks of this contract effort in detailed discussions with key ARSTAF participants in the implementation effort. Development of the Army-wide implementation plan did not proceed beyond the initial draft coordination and discussion stage by the conclusion of the contract effort covered by this report.

It is, in any case, quite clear that achievement of the substantial advantages and objectives sought through the successful effort to develop an effective quantitative position identification methodology and a readily usable implementing tool--the Handbook--now hinges upon finalization of a well-conceived Army-wide implementation plan. Concurrent with implementation, a broad and thorough indoctrination program should be developed and presented Army-wide to:

- Improve and enhance the understanding and level of expertise of Army manpower managers in carrying out their position identification responsibilities, generally.
- Assure, specifically, that the most effective and efficient use is made of the Position Identification Handbook as a key element in that improvement and enhancement process.

APPENDIX A

FINAL DRAFT POSITION IDENTIFICATION HANDBOOK

Report 1165-01-81-CR

TECHNICAL REPORT 002AC

Final Draft

Position Identification Handbook

CONTRACT NUMBER..... MDA903-80-C-0324 (MOD. No. P00001)
CONTRACT EXPIRATION DATE..... 31 July 1981
SHORT TITLE OF CONTRACT WORK..... QUANTITATIVE POSITION IDENTITY
NAME OF CONTRACTOR..... GENERAL RESEARCH CORPORATION
CONTRACTOR'S PROJECT DIRECTOR..... JACK I. POSNER
PHONE NUMBER..... (703) 893-5900 (X698)

15 June 1981

The views and conclusions contained in this document are those of the author and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Army or the United States Government.

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**Department of the Army (ODCSPER)
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The Pentagon
Washington, D.C. 20310**

POSITION
IDENTIFICATION
HANDBOOK

FINAL DRAFT

HEADQUARTERS, DEPARTMENT OF THE ARMY

July 1979
September 1979 (Rev)
June 1980 (Rev)
August 1980 (Rev)
September 1980 (Rev)
December 1980 (Rev)
June 1981 (Rev)

Prepared under Contract Numbers DAAG39-78-C-0141 and MDA903-80-C-0324 (Modification No. P00001) by the General Research Corporation for the Manpower, Plans and Budget Directorate, Office of the Deputy Chief of Staff for Personnel, Department of the Army.

Contracting Officer's Representatives were, in consecutive order, Colonel K. D. Wall, Colonel Oran A. Massey, Mr. Clyde D. Boden, Colonel Oran A. Massey, and Lieutenant Colonel Jerome Tastad.

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Revised September 1979

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Revised August 1980

Revised September 1980

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Revised June 1981 (Final Draft)

FOREWORD

This pamphlet describes procedures used to define active Army positions by category (commissioned officer, warrant officer, enlisted, and civilian). These procedures are prescribed for use by manpower managers. They are also intended for use by others charged with position definition responsibilities such as those in AR 570-4. Their consistent application will directly promote the most effective and economic use of Army personnel resources.

The pamphlet also contains brief comment on the potential use of data in The Army Authorization Documents System (TAADS) described in AR 310-49.

Users of this publication are encouraged to submit recommended changes and comments for improvement. Comments should be keyed to the specific page, paragraph, and line of the text in which the change is recommended. Reasons will be provided for each comment to ensure understanding and complete evaluation. Comments should be prepared on DA Form 2028 (Recommended Changes to Publications and Blank Forms) and be forwarded direct to HQDA (DAPE-MBU), Washington, D.C. 20310.

PAMPHLET

NO. 570-X

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC,

POSITION IDENTIFICATION HANDBOOK

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CHAPTER 1
INTRODUCTION

1-1. PURPOSE. This pamphlet explains the Army position identification procedure. It provides guidance for applying this procedure at organizational and field level. It also addresses the use of position identification results in The Army Authorization Documents System (TAADS). It is intended to be used by Army personnel who are responsible for manpower resources.

1-2. OBJECTIVE. The objective of this pamphlet is to provide a consistent and accurate means of category identification. These means help to identify the need for commissioned officers, warrant officers, enlisted, or civilian incumbents. Mature judgment based on experience and training remains an important part of the identification process. Accurately selecting the factors and scoring the subfactors in this pamphlet are equally important. These procedures are designed to accomplish missions through the economic and effective use of personnel. They enhance Army ability to demonstrate the number and kinds of positions needed to execute the Army mission. They provide an improved method to identify positions in future Army force structure changes.

1-3. BACKGROUND. Army experience in structuring the personnel force to achieve fiscal and manpower resource management goals has shown the need to accurately determine manpower category. The objective procedures described in this pamphlet respond to that need. They focus on active Army force structure positions. They also have application to Army Reserve and National Guard positions. They do not address the use of in-service civilians versus contractor personnel.

CHAPTER 2
POSITION IDENTIFICATION FACTORS

2-1. GENERAL. Department of the Army (DA), Department of Defense (DOD), and Executive Branch directives and statutes establish criteria used in position identification. This chapter lists these position identification factors and subfactors with complete definitions.

2-2. POSITION IDENTIFICATION DEFINED.

a. "Position" means the work requirements assignable to a particular authorization. These consist of the following:

- (1) The duties which must be performed.
- (2) The responsibilities which may be exercised.
- (3) The conditions of employment. Examples are actual or potential exposure to hostile fire, geographic or physical location and environment, work hours, and other comparable conditions.
- (4) The level of employment. Examples are the level of executive and managerial skills required, technical skills and knowledge needed, level of position within the organization, and other comparable attributes.

b. "Identification" means the designation of a position as military or civilian. If military, it means further designation as either a commissioned officer, a warrant officer, or an enlisted authorization. The official position description and/or the military occupational specialty (MOS) or specialty code (SC) description must be studied in completing this process.

2-3. FACTOR AND SUBFACTOR DEFINITION AND USE.

a. "In-service civilian" means all Army civilian authorizations. This includes US direct hire, foreign national direct hire, and foreign national indirect hire. The term does not include contractor employees.

b. Clearly defined "factors" and "subfactors" are used to identify each position. They are applied by a process of decision-logic combined with a point scoring procedure. The initial use of decision-logic permits prompt identification of many positions on a yes-no basis

without resorting to point-scoring. Positions which cannot be identified by this method alone are evaluated by point-scoring.

c. The factors and subfactors in this chapter are all-inclusive. Position identification decisions will be based upon these factors and subfactors, using the procedures prescribed in chapter 3 of this pamphlet.

d. The factor and subfactor definitions in this chapter--

(1) Are listed in the order in which they appear when using the procedures in chapter 3.

(2) Are not designed to determine officer, enlisted, or civilian grades for individual positions.

(3) Are focused on the work requirements and the duties which must actually be performed in those positions. They are not focused on the capabilities of individuals.

2-4. DISTINGUISH BETWEEN MILITARY AND CIVILIAN POSITIONS.

a. The factors listed below will be used to distinguish between military and civilian positions. The definitions of these factors will allow clear-cut yes-no decisions. Accordingly, subfactors are not included. The definitions provided for the first three factors agree with those in AR 310-25.

<u>FACTOR</u>	<u>DEFINITION</u>
COMBAT	Positions in Category I units organized under table of organization and equipment (TOE), whose primary mission includes engaging and inflicting casualties and/or equipment damage on the enemy by use of unit organic weapons. Category I status is extended to corresponding headquarters and service companies whose mission is supporting and providing assistance to the unit, and to those command and control headquarters habitually operating in the forward portion of the active combat area (forward of the brigade rear boundary). Category I units normally operate in the forward portion of the active combat area, but may, because of the range of their primary weapons and positioning requirements, operate in the division and corps rear areas.

COMBAT SUPPORT	Positions in Category II units organized under table of organization and equipment (TOE), whose mission is primarily that of providing command and control, combat support, or combat service support and assistance to Category I units. Category II units operate in the combat zone, normally between the brigade and corps rear boundaries.
COMBAT SERVICE SUPPORT	Positions in Category III units organized under table of organization and equipment (TOE), whose mission is primarily service and assistance to the units operating in the combat area and operating agencies of the communications zone. The unit functions habitually in the communications zone or along the lines of communications leading thereto.
PRETRAINED CONTINGENCY/ WARTIME AUGMENTATION	<p>Table of distribution and allowances (TDA) positions that provide immediately deployable pretrained incumbents. These incumbents are for the contingency/wartime augmentation of combat, combat support, or combat service support TOE units. The skills of these positions are essential for TOE unit augmentation and casualty replacement either immediately or soon after commencement of sustained contingency/wartime operations.</p> <p>These requirements will be determined by HQDA and allocated in periodic formal communications. HQDA communications identifying these requirements will have taken full account of the availability of Army Reserve and National Guard resources. These would be resources which, depending upon the circumstances, the decisions of the President, and the actions of the Congress, may or may not be available in a national emergency.</p>
MILITARY BY LAW, TREATY, OR REGULATION	<p>Positions within or outside the DA which require a military incumbent by any of the following:</p> <ul style="list-style-type: none"> • Statute or regulation. Included are positions for officers detailed as general staff officers and inspectors general, and positions for officers appointed in the special branches of the Army (each corps of the Army Medical Department; the Judge Advocate General's Corps; the Chaplains). • Presidential or Secretary of Defense policies relating to US treaty commitments and matters vital to the security of the United States.

- Joint Chiefs of Staff action approving US Army military manpower contributions to international military activities or other activities based upon international agreement.

CIVILIAN BY LAW,
TREATY, OR
REGULATION

Positions within or outside the DA which require a civilian incumbent by any of the following:

- Statute or regulation.
- Presidential or Secretary of Defense policies relating to US treaty commitments and matters vital to the security of the United States.
- Joint Chiefs of Staff action approving contributions by the DA of in-service civilian manpower to international activities. These include NATO or other activities based upon international agreement.

EXTERNAL
MILITARY
REQUIREMENT

Positions designated for Army military incumbency by agreement between the DA and lateral or higher Federal authorities. These are positions within agencies that are outside the DA.

Positions designated for military incumbency to meet readiness and/or contingency/wartime augmentation and mobilization needs of agencies outside the DA based upon agreement between the DA and lateral or higher authorities. These are positions within the DA.

The positions in the above two categories are a part of active Army force structure strength, but are assigned to or programmed for any of the following:

- The Office of the Secretary of Defense (OSD).
- The Office of the Joint Chiefs of Staff (OJCS).
- The several OSD and JCS field activities.
- The unified and specified commands under the operational control of the JCS.
- Other designated activities within or under the jurisdiction of the Federal Government.

EXTERNAL
CIVILIAN
REQUIREMENT

Positions designated for incumbency by DA civilian employees by agreement between the DA and lateral or higher Federal authorities. These are positions within agencies that are outside the DA. They are positions that are a part of the active Army inservice civilian strength, but are located in one of the following:

- The unified and specified commands under the operational control of the JCS.
- Other designated activities within or under the jurisdiction of the Federal Government.

b. The definitions of the factors which follow may not allow clear-cut yes-no answers to basic military versus civilian identification questions. Accordingly, these factors are first defined in terms of overall meaning. They are then further defined by subfactors describing job elements which allow accurate position identification.

FACTOR

DEFINITION

SECURITY

TDA positions dedicated to physical security and tasks which, if delayed or not performed, could effectively cause immediate and direct impairment of combat capability. The primary tasks of these positions are the following:

- Provide physical security and law enforcement at installations primarily oriented toward troop activities.
- Provide physical security and law enforcement at selected activities to prevent loss or destruction of government property essential to military readiness and the national security.

SECURITY SUBFACTORS

- Secure nuclear weapons and command posts.
- Supervise prisoners.
- Perform police patrol and police desk operations.
- Prevent/investigate crime; cooperate/coordinate with civil police authorities.
- Control/issue ID documentation; perform physical security planning and/or inspection.
- Control traffic; investigate traffic accidents.

INTELLIGENCE

TDA positions dedicated to intelligence tasks which, if not performed, could effectively cause immediate and direct impairment of combat capability. Examples of these are the following:

- Positions assigned to the selection and prioritization of requirements and allocation of resources.
- Positions assigned to correlate, analyze and direct collection programs.
- Positions required to develop focused intelligence summaries, devise techniques, perform intelligence tasks, and control the dissemination of intelligence information.

INTELLIGENCE SUBFACTORS

- Direct operational program.
- Select and prioritize requirements; allocate resources.
- Devise techniques; perform tasks.
- Prepare focused summaries.
- Control dissemination.
- Correlate and analyze.

CURRENT MILITARY BACKGROUND AND TRAINING REQUIRED

TDA positions that require military experience and training more substantial than familiarity with military administrative or personnel procedures, or similar capabilities reasonably possessed by civilian employees. Examples are:

- Positions assigned to direct planning; management; military systems maintenance, test, or evaluation; and weapons development. Also, other comparable indirect combat support activities in which substantive and recent military experience is necessary to insure that programs are directed toward essential military requirements.
- Positions for personnel assigned as trainers conducting essential military training based on their own military training, practical military experience, and current military doctrine.
- Positions that require training in explosive ordnance disposal, special weapons controller, and Special Forces aidman. Also other comparable combat support and combat service support-type functions, training for which is not normally available to or appropriate for civilian personnel.

CURRENT MILITARY BACKGROUND AND TRAINING REQUIRED
SUBFACTORS

- Tactical training of troops in the field.
- Define military requirements.
- Evaluate doctrine and tactics.
- Determine operational suitability.
- Test operational capability.
- Classroom and/or technical training.

MORALE, WELFARE,
AND RECREATION
(MWR) ACTIVITIES

TDA full-time operating and managerial positions in MWR activities will normally be staffed with civilians. Such activities may be supported from either appropriated or nonappropriated funds. Military incumbency of full-time MWR positions will be authorized only in the specific circumstances prescribed below:

- When military leadership/supervision is essential. Note, however, that such supervision may be a function of a military position at a higher level. Or, it may be a function of a designated position elsewhere in the organization of which the MWR activity is a part. Note, further, that military personnel may be assigned on an additional duty basis to serve as supervisor over or custodian of revenue producing MWR activities (except in primary duty full-time club management positions).
- As specified by HQDA for centrally managed force structure programs. See paragraph 2-7.

MORALE WELFARE, AND RECREATION (MWR) ACTIVITIES
SUBFACTORS

- Provide required military leadership/supervision or the effectiveness of an MWR activity will be materially compromised.
- Provide military leadership/supervision materially contributing to the maintenance of military morale and welfare.
- Supervise or perform work in an MWR activity.

CIVILIAN/
MILITARY MIX
REQUIRED

TDA full-time operating and managerial positions in functions which demand neither exclusively military nor exclusively civilian skills or training for the reasons specified elsewhere in this Handbook. Both military members and civilian employees are loyal, conscientious, and industrious in accomplishing work. Both share fully in maintaining the security of our country. A mixed civilian/military workforce allows the Army to make full use of the special capabilities of both military and civilian members.

Use of military positions can bring to bear the military member's current accumulated experience and understanding of the best current ways to provide the materiel, facilities, and services vital to the support of primary Army missions. In other TDA functions, a military position identification decision will clearly be required when:

- The position is used in or is subject to deployment in a direct military combat support role.
- The position is required for military personnel training/retraining on-the-job in essential military skills.

Use of civilian positions can bring to bear the specialized training and experience of civilian employees in skills and tasks which are inherently civilian functions. Because of the stability of civilian personnel assignments, the use of civilian positions can, in turn, stabilize the positions occupied by civilian employees. This stability can enhance essential corporate memory in the position and in the organization to which assigned. Use of civilian positions can enhance continuity of administration and operation. It can provide a nucleus of trained civilian personnel for expansion in any emergency. Civilian positions should be used in all cases which do not require military incumbents for specific reasons identified in this Handbook.

CIVILIAN/MILITARY MIX REQUIRED SUBFACTORS

- Subject to deployment in a direct military combat support role.
- Required for military personnel training/retraining on-the-job in essential military skills.
- Provide current military experience and understanding of primary military missions.
- Provide current expertise on the support needs of primary military mission activities.
- Provide continuity of administration and operation through stability of assignment.
- Provide services and/or expertise in a position which does not require military incumbents for specific reasons.

AUTHORITY AND
DISCIPLINE

There are both military and civilian supervisory positions in TDA organizations. Some of these supervisory positions require the exercise of direct military authority over military subordinates under the Uniform Code of Military Justice (UCMJ). The exercise of direct military authority and the maintenance of morale and discipline in the armed services is a function of the military leader (regardless of grade) acting on behalf of the military commander or on his/her own recognizance. However, supervision of military personnel does not, in and of itself, justify or require a military supervisor. A civilian supervisor may perform this function. Civilian supervision of military personnel does not include command or direct military authority since these are not functions of DA civilians.

AUTHORITY AND DISCIPLINE SUBFACTORS

- Exercise direct 24-hour independent responsibility for military authority and discipline.
- Maintain military morale through personal leadership.
- Supervise work.

TRADITION
OR CUSTOM

All positions in a TDA organization are responsible for the execution of assigned tasks. Some of these positions are traditionally or customarily filled by military personnel, including the following:

- Aide, officer and enlisted.
- Provost marshal.
- Inspector general.
- US Military Academy (USMA) professor and instructor as designated by Superintendent, USMA.
- Secretary of service schools and colleges.
- Command sergeant major.
- First sergeant.
- Band leader.
- Band member.
- Recruiter and military career counselor.
- Drill sergeant.
- Chapel activities specialist.

- Company level supply sergeant and company clerk.
- Honor guard.

Military identification of the positions listed above may contribute essential "esprit" to military organizations, or military identification may be a visible aspect of the position essential to the execution of the job. Other positions in the organization, though just as responsible for the execution of assigned tasks, are not materially affected by Army custom or tradition.

TRADITION OR CUSTOM SUBFACTORS

- Provide a military presence materially contributing to the effective discharge of tasks, or the maintenance of military esprit.
- Provide required military presence or the effectiveness of the position may be compromised.
- Execute tasks in an organization.

UNUSUAL HOURS OR WORKING CONDITIONS

TDA positions, not otherwise requiring military incumbents, which entail unusual working hours or working conditions not compatible with or normally associated with civilian employment. Military incumbency will be prescribed for these positions if MACOM Director of Civilian Personnel formally confirms that the unusual working hours or working conditions inherent in the position cannot reasonably be made a "condition of employment" in the successful recruitment of prospective civilian incumbents. This authority may be further delegated by MACOM to installation Civilian Personnel Offices.

UNUSUAL HOURS OR WORKING CONDITIONS SUBFACTORS

- Life or health risk exceeds civil standards.
- Duty tour schedule or length exceeds civil standards for the occupation.
- Frequent relocation.
- Remote location.

2-5. DISTINGUISH BETWEEN OFFICER AND ENLISTED POSITIONS.

a. The following factors distinguish between officer and enlisted positions. Definitions of factors allow clear cut yes-no decisions. Accordingly, subfactors are not included.

<u>FACTOR</u>	<u>DEFINITION</u>
COMMAND, PLATOON, OR ABOVE	Positions requiring the discharge of direct leadership authority and responsibility through the exercise of command of military units at platoon or higher organizational level. (Note: Warrant officers may not command units which include commissioned officers.)
DISCIPLINARY POWERS (UCMJ)	Positions requiring the exercise of powers prerequisite to the imposition of judicial or nonjudicial punishment under the UCMJ.
OFFICER OR ENLISTED BY LAW, TREATY, OR REGULATION	<p>Positions requiring an officer or enlisted person by any of the following:</p> <ul style="list-style-type: none"> • Statute or regulation. • Presidential or Secretary of Defense policies relating to US treaty commitments and to related matters vital to the security of the United States. • Joint Chiefs of Staff action approving US Army military manpower contributions to international military activities or other activities based upon international agreement. Examples of such activities include NATO, the NATO Military Committee, United Nations Command Korea, Southeast Asia Treaty Organization (SEATO), and Central Treaty Organization (CENTO). • Agreement between the DA and lateral or higher Federal authorities, designating positions for Army military incumbency to meet external military requirements. See "EXTERNAL MILITARY REQUIREMENT" on page 2-4 for further definition.

b. Definitions of the following factors may not allow clear-cut yes-no decisions on officer versus enlisted identification questions. Accordingly, these definitions include subfactors or job elements to support position identification.

<u>FACTOR</u>	<u>DEFINITION</u>
KNOWLEDGE	The amount and kind of information necessary for the performance of acceptable work and the extent of the skills needed to apply that knowledge. The necessary information may be steps, procedures, practices, policies, theories, principles, or concepts.

KNOWLEDGE SUBFACTORS

- Advanced degree required.
- Mastery of professional field to generate and develop new hypotheses and theories.
- Knowledge of a wide range of concepts, principles, and practices in a professional occupation.
- Knowledge of an extensive body of regulations on a wide variety of functions.
- Broad knowledge of military operations and subjects.
- Knowledge of basic operations which require some previous training.

SUPERVISORY CONTROL

The amount and kind of required direct or indirect controls. Controls are exercised in the way assignments are made, instructions are given, priorities and deadlines are set, and objectives and boundaries are defined. Use of these controls in ways that should best achieve unit goals requires coordination and face-to-face contact at the management and supervisory levels outside the immediate activity.

SUPERVISORY CONTROL SUBFACTORS

- Provide direction on broad mission and functions; coordinate with top management.
- Set overall objectives; establish resource levels; consult other managers.
- Make assignments; define objectives and priorities.
- Assure technical accuracy of work performed.
- Plan and carry out work in accordance with accepted practice.
- Work as instructed and consult supervisor as needed.

JUDGMENT AND GUIDELINES

The impact of the judgments and decisions the incumbent of the position makes. The kind of decisions and how they affect others. The nature of the directives and policies available, and the amount of individual judgment needed to apply the guidelines.

JUDGMENT AND GUIDELINES SUBFACTORS

- Interpret and apply broadest guidelines and legislation.
- Adapt general, but limited, guidelines and develop improved applications.
- Interpret and apply detailed guidelines; analyze results; recommend changes.
- From established procedures or guidelines, select and apply best approach.
- Apply specific guidelines effectively.
- Follow detailed guidelines; seek guidance for all deviations.

DECISION- MAKING AND COMPLEXITY

Identifying the different ways to do a task and selecting the best and fastest method. How difficult and original the decision will be is determined by the complexity of the tasks, steps, processes, or methods available.

DECISIONMAKING AND COMPLEXITY SUBFACTORS

- Decide concepts, theories, programs, content, and character of operations.
- Originate techniques, establish criteria, decide how personnel will be used.
- Direct varied workforce, interpret data, plan work, make refinements.
- Decide what needs to be done within established alternatives.
- Select source of information and type of action, or authorize a direction, based on written guidance.
- Follow specific instructions on work quickly mastered.

2-6. DISTINGUISH BETWEEN COMMISSIONED AND WARRANT OFFICER POSITIONS. While the factors and subfactors in paragraph 2-5 can identify officer positions, they may not distinguish between commissioned and warrant officer authorizations. The following factors make that distinction. The definitions of these factors may not allow clear-cut yes-no decisions on commissioned officer versus warrant officer identification questions. Accordingly, these definitions include subfactors or job elements to support position identification.

FACTOR

DEFINITION

KNOW-HOW*

The total amount of every kind of skill, however it was learned, that is needed for acceptable job performance. The accumulated amount of knowledge, managerial understanding, and human relations skills required to do the job.

KNOW-HOW SUBFACTORS

- Responsibility for military operations and force management.
- Staff or line planning/programming/management/organization responsibilities.
- In-depth expertise in several enlisted technical skills.
- Employ special technical skills; operate complex equipment.
- Supervise technical service activity.

PROBLEM
SOLVING*

How much know-how is required to recognize, define, and resolve a problem. The amount of original, self-starting thinking required to analyze, evaluate, create, reason, and draw conclusions.

PROBLEM SOLVING SUBFACTORS

- Set mission goals and evaluate progress.
- Interpret policy and doctrine.
- Perform technical management functions.
- Direct personnel using proven methods.
- Solve technical operating problems.

ACCOUNTABILITY*

Answer for actions and take the consequences of the action. The impact of the job on end results with respect to the responsibility of the position.

* Adapted from the Third Quadrennial Review of Military Compensation, Staff Studies and Selected Supporting Papers, Volume VIII, Department of Defense, December 1976.

ACCOUNTABILITY SUBFACTORS

- Control substantial resources.
- Develop functional policies and advise on implementation.
- Responsible for administrative and support services.
- Receipt and account for property.

2-7. MANAGEMENT OF THE MILITARY FORCE STRUCTURE. Factors and subfactors in this chapter generally emphasize the tasks of each position. They also focus on the conditions under which those tasks must be performed. But, there are exceptions. For example, military positions identified to meet "PRETRAINED CONTINGENCY/WARTIME AUGMENTATION" needs might not otherwise require military incumbents. However, they are identified as military authorizations to meet the force management requirements of peacetime operations while maintaining combat readiness. Following are five additional factors (four in this paragraph and one in paragraph 2-8. below) which will also identify positions which are essential to effective force management within DA. These positions fall under programs which cannot be managed exclusively in the field because they require access to total active force data. MACOM-wide or unit-wide data will not suffice. Accordingly, HQDA must determine, or participate in determining, the requirements for positions affected by these force management needs. HQDA must also provide supplementary guidance to field activities for use in identifying certain of these policies.

FACTOR

DEFINITION

ROTATION BASE REQUIREMENTS

CONUS TDA positions which are identified for military incumbency to assist in providing military personnel a minimum 24 month CONUS tour between overseas assignments.

- For CONUS TDA positions with rotation base problems, HQDA has implemented a rotation base policy and publishes instructions each year. These are published in a letter titled "Manpower Policy to Assist in Stabilization of the Rotation Base." MOSs with imbalance problems are listed and identified by MACOM. Commanders are instructed to protect in their commands these MOSs in the magnitudes prescribed by HQDA.

- An enlisted Space Imbalanced MOS (SIMOS) program has been developed for those MOSs having more than 55% of their authorizations overseas. Implementation of that program is prescribed in a DA Circular in the 611 series. Civilianization or contract performance of skills in these MOSs is prohibited.

CAREER
PROGRESSION
REQUIREMENTS

TDA positions which would not otherwise require military incumbents, but which are identified for military incumbency to provide balanced and reasonable promotion flow and career progression. Career progression requirements must be computed centrally since they are based upon total active force needs in each military identity (commissioned officer, warrant officer, enlisted). TDA positions will not be identified for military incumbency on grounds of career progression requirements unless they are formally cited for such identification by HQDA, by MOS and grade.

NO QUALIFIED
CIVILIANS
AVAILABLE

TDA positions, not otherwise requiring military incumbents, which are dedicated to functions which must be performed by government personnel, but for which no qualified civilians are available. Military incumbency will be prescribed for these positions, provided that:

- All reasonable efforts have been made locally to recruit qualified civilians.
- Within 12 months after initial designation for military incumbency, HQDA formally confirms qualified civilians from other geographical areas are not available. Normally, foreign national direct hire and US direct hire categories are interchangeable. If the local labor market in an overseas area cannot supply the required skills, the recruitment of civilian applicants from the CONUS must be considered.
- Conversion to civilian incumbency will be effected when qualified civilians do become available.

NO WARRANT
OFFICER
MOS
AVAILABLE

TDA positions identified for warrant officer incumbency in skills for which a warrant officer MOS has not been established by HQDA. Commissioned officer incumbency will be prescribed for these positions and the following action will be taken:

- Prepare a written summary identifying the position by organization, TDA, paragraph, line, CCNUM, EDATE, and position description. Include a concise summary of the duties assigned to the position.
- Attach a completed copy of the Position Identification Process Summary (DA Form XX) displayed on page 3-14 of this Handbook.
- Forward the written summary and attached copy of DA Form XX to Soldier Support Center, National Capital Region ATTN: ATZI-NCR-MO-0, 200 Stovall Street, Alexandria, VA 22332. The material will be used by the Soldier Support Center, National Capital Region to develop a data base with which to evaluate the need for future establishment of a new, or possible revision of an existing warrant officer MOS, Additional Skill Identifier, or Special Qualification Identifier.

2-8. EFFECTIVE MANPOWER RESOURCE MANAGEMENT. Military and civilian manpower authorizations for DA are allocated annually by the Congress and the Office of the Secretary of Defense. HQDA, in turn, allocates all available civilian and military authorizations to MACOMs and agencies. It is recognized that resulting military or civilian manpower resource limitations and ceilings may not always allow designation of the ideal identity for all positions. In such cases, the MACOM or agency concerned must first make every effort to provide the required military or civilian authorizations from within MACOM/agency allocations to allow designation of the ideal identity. Where that is not possible, HQDA must participate in the follow-on force management actions needed to obtain the necessary military or civilian authorizations as quickly as possible.

FACTOR

DEFINITION

EFFECTIVE MANPOWER RESOURCE MANAGEMENT

Where insufficient MACOM/agency manpower resources are available to allow designation of the ideal position identity, military positions in TDA organizations may alternatively be designated as civilian, or civilian positions may alternatively be designated as military, in strict compliance with the provisions of AR 570-4.

- Where designation of an alternative position identity is necessary, commanders will give first consideration to newly established or otherwise vacant positions.

- Where designation of an alternative position identity is necessary for an existing position which is not vacant, commanders will take the following action.
 - Conclusively determine that redesignation of position identity cannot be deferred.
 - Conclusively determine that redesignation of position identity will make the best use of available manpower resources.
 - Terminate the alternative position identification and redesignate the position in its ideal identity at the earliest practicable date by requesting the necessary manpower resources through channels to HQDA.

CHAPTER 3

METHOD

3-1. GENERAL. The position identification procedure is sequential. It combines decision logic and point score questions. It applies to all positions in the active Army force structure, except as discussed in paragraph 3-2.

a. Decision logic tables are used to analyze a series of if-then relationships. They focus attention on the precise information necessary to choose between two alternatives.

b. Point scores are used when the nature or the number of the factors or subfactors which apply to an individual position do not permit use of an if-then decision logic table only. Point scoring procedures presented here combine whole job ranking, point rating, and factor comparison features of job evaluation.

c. Tables 3-1 through 3-6 used in this process appear in consecutive order at the end of this chapter.

3-2. EXCLUSIONS. The procedures prescribed in this pamphlet apply to all active Army positions, except as indicated below.

a. Designation of incumbency for the following military positions is directed by law. Or, it is derived by a quantitative function of the number of active duty military authorizations. The position identification process is, therefore, not used for the following individual groupings:

- Cadets
- Students
- Trainees
- Holdees
- Patients
- Transients
- Prisoners

b. Other positions in the active Army force structure may be excluded from consideration under the procedures prescribed in this

Handbook for a period of up to 1 year from its date of publication. These are positions that are specifically designated in current formal, numbered Army administrative publications, listed in DA Pamphlet 310-1, as commissioned officer, warrant officer, enlisted, or civilian. Within that 1-year period, the existing basis for the "by direction" category identification of such positions will be reexamined. That reexamination will give full consideration to the factors, subfactors, and principles in this pamphlet. Deviations beyond the 1-year period will require formal HQDA approval.

3-3. IDENTIFICATION PROCESSES.

a. Position identity is established by following a three-step process.

- (1) Identify positions as civilian or military.
- (2) Identify military positions as officer or enlisted.
- (3) Identify officer positions as commissioned officer or warrant officer.

b. Each step includes decision logic tables and a quantitative process. In applying the procedure, it may not be necessary to use all of the tables. Each table contains instructions which tell the user which table to use next in completing the process.

c. Table 3-6 takes account of HQDA centrally managed force structure programs. DA Form XX takes account of possible shortfalls in available manpower resources. Position identity established by the basic three-step procedure may be altered by these programs or shortfalls. For example, a position initially identified as civilian by table 3-1 may later be identified for military incumbency because of rotation base requirements. Any resulting conversion of an established position identity must be accomplished as specified in DA instructions (see paragraph 3-4, below).

d. The process uses consecutively numbered tables. Each table uses an if-then logic sequence to lead the user through the process. It uses the position identification factors defined in chapter 2. The user must fully understand and conform to factor definitions throughout the process.

e. Users must be familiar with the organization to which the position is assigned. Detailed information concerning the functions, specific duties, and any unique characteristics of the position must either be known to the analyst or obtained through work center visits.

3-4. MILITARY/CIVILIAN POSITION CONVERSION. Any conversion of an established position identity must comply with the provisions of AR 570-4.

a. In the conversion of positions from military to civilian incumbency, normally, civilians will be substituted for military personnel on a one-for-one exchange. Such conversion will normally occur upon rotation of the military incumbent.

b. Conversions of civilian positions to permanent military incumbency which are in conformance with the policies prescribed in AR 570-4 are subject to prior approval of HQDA. Requests will be forwarded to ODCSPER, ATTN: DAPE-MB. Such conversions will occur upon normal attrition of the civilian incumbent or upon suitable reassignment to a comparable position without adverse impact on the employee.

3-5. USING THE POSITION IDENTIFICATION TABLES. The process is designed to use tables 3-1 through 3-6 in sequence. The content and use of each table are discussed below. DA Form XX is used to summarize the technician's results.

a. Table 3-1 is designed to distinguish between military and civilian positions by applying factors which clearly define a position's ideal identity.

(1) Rules a through h provide a clear-cut yes-no answer. In such cases, go to table 3-3, or directly to DA Form XX, as specified in column IV of table 3-1.

(2) Rules i through p do not provide a clear-cut yes-no answer. The technician can select one or more of this last group, and proceed to table 3-2.

b. Table 3-2 uses point scores to establish the military or civilian category for any position not finalized by the yes-no process in table 3-1. These point scores are determined when the technician

assigns a percentage value to the subfactor or subfactors which apply to the position being evaluated. The percentage assigned by the technician is a best judgment estimate of the amount of time that each of these subfactors will be performed. For example, a position demanding 100% of work time to "Determine Operational Suitability" would be scored $300 \times 100\%$ or 300 points. The total for all subfactors scored will show if civilian or military ideal identity is established.

(1) Percentages are determined by accounting for all of the work time of the officer specialty, the enlisted MOS, or the position description. Use all available information pertaining to the position.

(2) Positions with work time demands under subfactors with a small multiplier may be identified as civilian. For example, a position may involve only the following subfactors:

	<u>Factor</u>	<u>Subfactors</u>	<u>Work Time</u>	<u>Score</u>
(i)	Security	Control Traffic: Investigate Traffic Accidents $20 \times \% =$	Control/Issue ID Documentation; Perform Physical Security Planning and/or Inspection $40 \times 50\% = 20$	$40 \times 50\% = 20$
(j)	Intelli- gence	Correlate/ Analyze $80 \times 25\% = 20$	Control Dissemination $90 \times \% =$	$80 \times 25\% = 20$
(k)	Current Military Background/ Training Required	Classroom and/ or Technical Training $60 \times 25\% = 15$	Test Operational Capability $260 \times \% =$	$60 \times 25\% = 15$ Total 55

(3) In the above example, the score of less than 120 fails to establish a military requirement and the position is initially identified as civilian.

(4) For civilian positions, those which score less than 120 points, proceed to table 3-6. For military positions above 120 points, go to table 3-3.

c. Tables 3-3, 3-4, and 3-5 are used to determine the proper category for military positions.

(1) Table 3-3 identifies positions by factors which allow definition on a yes-no basis. In some cases, that yes-no definition will allow final identification of a position for commissioned, warrant officer or enlisted incumbency without using additional tables. In such cases, proceed directly to DA Form XX. In all other cases, proceed to table 3-4 or 3-5, as specified in column IV of table 3-3.

(2) Table 3-4 uses point scores. Fixed score values appear in the lower right hand corner of each subfactor block. Score totaling is similar to that used in table 3-2. Subfactors are selected and their point scores are totaled to determine the correct identity. Percentages are not used here or in table 3-5.

(a) Scores above 450 define commissioned officer positions. Proceed directly to DA Form XX.

(b) Scores of from 300 up to and including 450 define officer positions, but do not distinguish between commissioned and warrant officer. Proceed to table 3-5.

(c) Scores less than 300 define enlisted positions. Proceed directly to DA Form XX.

(3) Table 3-5 is used if the table 3-4 score is from 300 to 450 to distinguish between commissioned officer and warrant officer. Fixed point scores based on "KNOW-HOW," "PROBLEM SOLVING," and "ACCOUNTABILITY" job factors are used. The subfactors that apply to the position are selected and their point scores are totaled to determine the correct identity.

EXAMPLE: The completed tables on the following pages show how a technician has scored a position. A score of 330 has been awarded on table 3-4. As required by column V of table 3-4, the position is scored again on table 3-5. The resulting score of 280 (see column III of table 3-5) requires that the technician proceed as follows:

TABLE 3-4.

POINT SCORE IDENTIFICATION OF OFFICER
AND ENLISTED POSITIONS

TABLE 3-4										
POINT SCORE IDENTIFICATION OF OFFICER AND ENLISTED POSITIONS										
I.		II.					III.		V.	
IF THE POSITION FITS THE DEFINITION OF:		THEN SELECT THE SINGLE BLOCK WITH THE HIGHEST POINT SCORE THAT BEST DESCRIBES THE POSITION:					HOW ENTER SCORE FOR ROW TOTAL COLUMN III		AND POSITION IDENTITY WILL BE ESTABLISHED AS:	SUBJECT TO:
							TOTAL COLUMN III			

TABLE 3-5.
POINT SCORE IDENTIFICATION OF COMMISSIONED OFFICER
AND WARRANT OFFICER POSITIONS

TABLE 3-5		POINT SCORE IDENTIFICATION OF COMMISSIONED OFFICER AND WARRANT OFFICER POSITIONS									
I. REVIEW THE POSITION AND THE DEFINITION OF:	II. THEN FOR EACH RULE SELECT THE SINGLE BLOCK WITH THE HIGHEST POINT SCORE THAT BEST DESCRIBES THE POSITION:	III. NOW ENTER SCORES AND ADD COLUMN					IV. AND POSITION IDENTITY WILL BE ESTABLISHED AS:				
		Supervise Technical Service Activity	Employ Special Technical Skills; Operate Complex Equipment	In-depth Expertise in Several Enlisted Technical Skills	Staff or Line Planning/ Programming/ Management/ Organization Responsibilities	Responsibility for Military Operations and Force Management					
(a) KNOW-HOW		40	60	70	270	310					
(b) PROBLEM SOLVING		60	70	70	250	280					
(c) ACCOUNTABILITY		40	40	70	140	170					
(d)											
(e)											
		TOTAL IF ABOVE					COMMISSIONED OFFICER - ENTER ON DA FORM XX				
		TOTAL IF BELOW					SEE NOTES (1) AND (2), BELOW				

SELECT THE NOTE WHICH APPLIES

NOTE (1): If an appropriate warrant officer MOS exists, the position will be identified for warrant officer incumbency. Proceed directly to DA Form XX.

NOTE (2): If an appropriate warrant officer MOS does not exist, proceed to rule (d), table 3-6.

- If a suitable warrant officer MOS exists, position identity is established as warrant officer. The technician then proceeds directly to DA Form XX.
- If a suitable warrant officer MOS does not exist, the technician proceeds to table 3-6, rule (d). Under that rule, position identity is established as commissioned officer. HQDA must be notified. See paragraph 2-7, above.

d. Table 3-6 identifies positions for military incumbency when required by centrally managed Army-wide manpower programs. These requirements are discussed in paragraph 2-7. Upon completion of table 3-6, proceed to DA Form XX.

3-6. MAINTAINING/RECORDING POSITION IDENTIFICATION. The position identification process is summarized on DA Form XX. This form provides a record of the position identification decision for each individual position. It will be filed in accordance with AR 340-18-1. Entries on DA Form XX will be completed as follows:

a. Items 1 through 7 are self-explanatory. These data are required by The Army Authorization Documents System (TAADS). See AR 310-49.

b. Items 8a, 8b, and 8c in Part I are used to record the ideal position identification results from tables 3-1 through 3-5. If a particular table was not used, make no entries for that table. For tables that were used:

(1) In the column titled "RULE" on DA Form XX, enter the rule(s) used either to determine position identity or to determine the position identity was not yet finalized. Entries are required only for tables 3-1 and 3-3, if used.

(2) In the column titled "SCORE" on DA Form XX, enter the total score given to the position. Entries are required only for tables 3-2, 3-4, and 3-5, if used.

(3) In the column headed "(✓)" under "POSITION IDENTIFICATION" place a check mark (✓) in the appropriate box for each table used.

c. Item 9 of part II is used to record an alternative position identification decision. It requires entries under two conditions:

(1) If table 3-6 is used. In each of the two columns headed "(v)," place a check mark in the appropriate box. In the column headed "AUTHORITY," enter the applicable HQDA directive. For example, a DA Circular in the 611 series would be cited for "ROTATION BASE" positions identified under the SIMOS program. However, no entry is required in the column headed "AUTHORITY" for positions in which there is no warrant officer specialty available.

(2) If "EFFECTIVE MANPOWER RESOURCE MANAGEMENT" is used as the reason for establishing an alternate identity for the position. This authority may be invoked in strict accordance with the provisions of paragraph 2-8, after completing the decision-logic and point-scoring process prescribed in this Handbook. In such a case, the analyst preparing DA Form XX will:

(a) Place a check mark in the appropriate box in the first of the part II columns headed "(v)."

(b) Insert the appropriate paragraph(s) of AR 570-4 under which the alternate identity decision was made.

(c) Determine the alternate identity of the position and place a check mark in the appropriate box in the second of the part II columns headed "(v)." If table 3-6 was previously used and another check mark already appears in the second of the part II columns headed "(v)," mark a handwritten "X" through that other check mark, but do not erase it. In determining the alternate military identity (commissioned officer, warrant officer, or enlisted) for a position that would otherwise be designated civilian, adapt and use the content of this Handbook and the work already done in completing tables 3-1 through 3-6 to reach an objective decision.

d. In item 10, enter the final position identity.

e. Item 11 is reserved for an automation code to be provided in the future.

f. Items 12, 13, and 14 will be completed by the technician who determined the position identity.

3-7. DATA FOR MANAGEMENT INFORMATION SYSTEMS. Consideration is being given to including position identification data in TAADS. Final identity, either ideal or alternate, recorded in item 10 of DA Form XX would be reported. The final decision rule from part I or part II would also be required. Automation instructions will be announced in a change to AR 310-49.

TABLE 3-1

IDENTIFY MILITARY AND CIVILIAN POSITIONS (APPLY RULES IN CONSECUTIVE ORDER)

R U L E	I. IF THE POSITION FITS THE DEFINITION OF:	II. THEN RULES:	III. AND POSITION IDENT- ITY WILL BE ESTAB- LISHED AS:	IV. SUBJECT TO FURTHER DEFINI- TION UNDER:
(a)	COMBAT	(b) THROUGH (p) <u>WILL NOT BE APPLIED</u>	MILITARY	TABLE 3-3
(b)	COMBAT SUPPORT	(c) THROUGH (p) <u>WILL NOT BE APPLIED</u>	MILITARY	TABLE 3-3
(c)	COMBAT SERVICE SUPPORT	(d) THROUGH (p) <u>WILL NOT BE APPLIED</u>	MILITARY	TABLE 3-3
(d)	PRETRAINED CONTINGENCY/MARTIME AUGMENTATION	(e) THROUGH (p) <u>WILL NOT BE APPLIED</u>	MILITARY	TABLE 3-3
(e)	MILITARY BY LAW OR TREATY	(f) THROUGH (p) <u>WILL NOT BE APPLIED</u>	MILITARY	TABLE 3-3
(f)	CIVILIAN BY LAW OR TREATY	(g) THROUGH (p) <u>WILL NOT BE APPLIED</u>	CIVILIAN	DA FORM XX*
(g)	EXTERNAL MILITARY REQUIREMENT	(h) THROUGH (p) <u>WILL NOT BE APPLIED</u>	MILITARY	TABLE 3-3
(h)	EXTERNAL CIVILIAN REQUIREMENT	(i) THROUGH (p) <u>WILL NOT BE APPLIED</u>	CIVILIAN	DA FORM XX*
(i)	SECURITY	(j) THROUGH (p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(j)	INTELLIGENCE	(k) THROUGH (p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(k)	CURRENT MILITARY BACKGROUND/ TRAINING REQUIRED	(l) THROUGH (p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(l)	MORALE, WELFARE, AND RECREATION (MWR) ACTIVITIES	(m) THROUGH (p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(m)	CIVILIAN/MILITARY MIX REQUIRED	(n) THROUGH (p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(n)	AUTHORITY AND DISCIPLINE	(o) THROUGH (p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(o)	TRADITION AND/OR CUSTOM	(p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(p)	UNUSUAL HOURS OR WORKING CONDITIONS	(PROCEED TO COLUMN III)	NOT YET FINALIZED	TABLE 3-2

* No further position definition is required for these positions.

TABLE 3-2

POINT SCORE IDENTIFICATION OF MILITARY AND CIVILIAN POSITIONS

I.		II.							III.	IV.	V.		
IF THE POSITION FITS THE DEFINITION OF:		THEN: ● SELECT THE BLOCKS THAT APPLY TO THE POSITION; ● STATE PERCENT OF WORK TIME COVERED BY EACH BLOCK YOU SELECTED; ● AND COMPUTE THE POINT SCORE FOR EACH BLOCK YOU SELECTED.							● EACH RULE ● COLUMN III	AND POSITION IDENTITY WILL BE ESTABLISHED AS:	SUBJECT TO FURTHER DEFINITION UNDER:		
TOTAL FOR ALL BLOCKS UNDER RULES (i) TO (m) MAY NOT EXCEED 100%													
(i)	SECURITY	CONTROL TRAFFIC INVESTIGATE THREAT ACCIDENTS	20X %	CONTINGENCY PLANNING AND/OR DISASTERS RECOVERY	40X %	PREPARE FOCUSSED SUPPORTS	120X %	PREPARE TECHNICAL TACTICS	150X %	SUPERVISE PRESUMING	190X %	700X %	
(j)	INTELLIGENCE	CORRELATE/ ANALYZE	80X %	CURRENT DISSEMINATION	90X %	PREPARE FOCUSSED SUPPORTS	90X %	ONLINE TECHNICAL TACTICS	110X %	SELECT/IDENTIFY ALLIED RESOURCES	120X %	130X %	
(k)	CURRENT MILITARY BACKGROUND/TRAINING REQUIRED	CLASSTHROUGH TECHNICAL TRAINING	60X %	TEST CAPABILITY	260X %	DETERMINE OPERATIONAL SUITABILITY	300X %	EVALUATE MULTIPLE AND TACTICS	320X %	DEFIN MILITARY ACCOMPLISHMENTS	380X %	800X %	
(l)	MORALE WELFARE AND RECREATION (MWR) ACTIVITIES	SUPPLEMENTARY IN AN MWR ACTIVITY	20X %				80X %				100X %		
(m)	CIVILIAN/ MILITARY MIX REQUIRED	PROVIDE SERVICES AND/ SUPPORTS TO A MILITARY UNIT OUTSIDE THE MILITARY SUPPORT IN A SPECIFIC AREA	10X %	PROVIDE CIVILIAN IN A MILITARY UNIT (MILITARY SUPPORT IN A SPECIFIC AREA)	20X %	PROVIDE CIVILIAN SUPPORTS TO A MILITARY UNIT (MILITARY SUPPORT IN A SPECIFIC AREA)	160X %	PROVIDE CIVILIAN SUPPORTS TO A MILITARY UNIT (MILITARY SUPPORT IN A SPECIFIC AREA)	220X %	PROVIDE CIVILIAN SUPPORTS TO A MILITARY UNIT (MILITARY SUPPORT IN A SPECIFIC AREA)	330X %	1130X %	
FOR RULE (n) ENTRIES IN ALL BLOCKS MAY NOT EXCEED 100%													
(n)	AUTHORITY AND DISCIPLINE	SUPERVISOR WORK	24X %				240X %				1130X %		
FOR RULE (o) ENTRIES IN ALL BLOCKS MAY NOT EXCEED 100%													
(o)	TRADITION AND/OR CUSTOM	EXECUTE TASKS IN AN ORGANIZATION	24X %				60X %				300X %		
FOR RULE (p) ENTRIES IN EACH BLOCK MAY NOT EXCEED 100%													
(p)	UNUSUAL HOURS OR WORKING CONDITIONS	REMIT LOCATION	60X %	PREPARE MILITARY SUPPORTS	90X %	PREPARE FOCUSSED SUPPORTS	130X %	ONLINE TECHNICAL TACTICS	174X %				
(q)													
(r)													
TOTAL IF BELOW 120											CIVILIAN	TABLE 3 6	
TOTAL IF 120 OR ABOVE											MILITARY	TABLE 3 3	

TABLE 3-3

IDENTIFY OFFICER AND ENLISTED POSITIONS

R U L E	I. IF THE POSITION:	II. THEN:	III. AND POSITION IDENTITY WILL BE ESTABLISHED:	IV. SUBJECT TO:
(a)	FITS THE DEFINITION OF: • COMMISSIONED OFFICER BY LAW, TREATY, OR REGULATION • COMMAND, PLATOON OR ABOVE (UNIT CONTAINS COMMISSIONED OFFICERS OTHER THAN THE COMMANDER)	RULE (b), (c), (d), AND (e) WILL NOT BE APPLIED	COMMISSIONED OFFICER	NO FURTHER DEFINITION. ENTER IDENTITY ON DA FORM XX
(b)	FITS THE DEFINITION OF: • WARRANT OFFICER BY LAW, TREATY, OR REGULATION	RULE (c), (d), AND (e) WILL NOT BE APPLIED	WARRANT OFFICER	NO FURTHER DEFINITION. ENTER IDENTITY ON DA FORM XX
(c)	FITS THE DEFINITION OF: • COMMAND, PLATOON OR ABOVE (UNIT DOES <u>NOT</u> CONTAIN OTHER COMMISSIONED OFFICERS); OR • DISCIPLINARY POWERS (UCMJ), OR • OFFICER BY LAW, TREATY, OR REGULATION	RULE (d) AND (e) WILL NOT BE APPLIED	OFFICER	FURTHER DEFINITION UNDER TABLE 3 5
(d)	FITS THE DEFINITION OF: • ENLISTED BY LAW, TREATY, OR REGULATION	RULE (c) WILL NOT BE APPLIED	ENLISTED	NO FURTHER DEFINITION ENTER IDENTITY ON DA FORM XX
(e)	DOES NOT FALL UNDER RULES (a), (b), (c), OR (d)	(PROCEED TO COLUMN III)	NOT YET FINALIZED	FURTHER DEFINITION UNDER TABLE 3 4

TABLE 3-4

POINT SCORE IDENTIFICATION OF OFFICER AND ENLISTED POSITIONS

I.		II.										III. NOW ENTER SCORE FOR TOTAL COLUMN I	AND POSITION ID- ENTITY WILL BE ESTABLISHED AS:	V. SUBJECT TO:
1.	2. THE POSITION FITS THE DEFINITION OF:	THEN SELECT THE SINGLE BLOCK WITH THE HIGHEST POINT SCORE THAT BEST DESCRIBES THE POSITION:												
3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
(a)	KNOWLEDGE	Knowledge of Basic Operations Which Require Some Previous Training	50	Plan and Carry Out Operations According to Accepted Practice	70	Knowledge of an Extensive Body of Regulations Which Require Mastery of Functions	90	Knowledge of a Wide Range of Concepts and Principles in a Professional Occupation	290	Mastery of a Professional Field and Concepts and Principles in a Professional Occupation	410	Advanced Degree Required		
(b)	SUPERVISORY CONTROL	Work on Detailed and Complex Operations as Needed	30	Apply Specific Guidelines Effectively for all Deviations	30	From Established Procedures/ Guidelines, Select and Apply Best Approach	60	Intercept and Apply Detailed Guidelines; Monitor Results; Recommend Changes	80	Set Overall Objectives; Establish Resource Levels; Coordinate with Top Managers	300	Intercept and Apply Broadest Guidelines and Legislation		
(c)	JUDGMENT AND GUIDELINES	Follow Detailed Instructions; Seek Guidance for all Deviations	30	Follow Specific Instructions on Work Quickly Mastered	30	Decide What Needs to be Done Within Established Alternatives	80	Direct Varied Workforce, Intercept Data, Plan Work, Make Adjustments Will Be Used	130	Adapt General, but Limited, Guidelines and Develop Approved Alternatives	190	Intercept and Apply Broadest Guidelines and Legislation		
(d)	DECISION MAKING AND COMPLEXITY	Follow Specific Instructions on Work Quickly Mastered	30	Select Source of Information and Type of Action, or Authority to Take Action Upon Willing Guidance	50	Decide What Needs to be Done Within Established Alternatives	80	Direct Varied Workforce, Intercept Data, Plan Work, Make Adjustments Will Be Used	90	Adapt General, but Limited, Guidelines and Develop Approved Alternatives	230	Intercept and Apply Broadest Guidelines and Legislation		
(e)												TOTAL IF BELOW 300	ENLISTED	NO FURTHER DEFINITION ENTER ON DA FORM XX
(f)												TOTAL IF 300 TO 450	OFFICER	FURTHER DEFINITION UNDER TABLE 3-5
(g)												TOTAL IF ABOVE 450	COMMISSIONED OFFICER	NO FURTHER DEFINITION ENTER ON DA FORM XX

TABLE 3-5

POINT SCORE IDENTIFICATION OF COMMISSIONED OFFICER AND WARRANT OFFICER POSITIONS

I. REVIEW THE POSITION AND THE DEFINITION OF:	II. THEN FOR EACH RULE SELECT THE SINGLE BLOCK WITH THE HIGHEST POINT SCORE THAT BEST DESCRIBES THE POSITION:							III. NOW ENTER SCORES AND ADD COLUMN ESTABLISHED A5:	IV. AND POSITION IDENTITY WILL BE ESTABLISHED A5:
	Supervise Technical Service Activity	Employ Special Technical Skills; Operate Complex Equipment	In-depth Expertise In Several Enlisted Technical Skills	Staff or Line Planning/ Programming/ Organization/ Responsibilities	Responsibility for Military Operations and Force Management	Interpret Policy and Doctrine	Set Mission Goals and Evaluate Progress		
(a) KNOW-HOW	40	60	70	270	310				
(b) PROBLEM SOLVING	60	70	70	250	280				
(c) ACCOUNTABILITY		40		Develop Functional Policies and Advise on Implementation	Control Substantial Resources				
(d)			70	140	170			TOTAL (IF APPLICABLE)	COMMISSIONED OFFICER - ENTER ON DA FORM XX
(e)								TOTAL IF NOT APPLICABLE	SEE NOTES (1) AND (2), BELOW

SELECT THE NOTE WHICH APPLIES

NOTE (1): If an appropriate warrant officer MOS exists, the position will be identified for warrant officer incumbency. Proceed directly to DA Form XX.

NOTE (2): If an appropriate warrant officer MOS does not exist, proceed to rule (d), table 3-6.

TABLE 3-6

IDENTIFY MILITARY FORCE STRUCTURE POSITION REQUIREMENTS

R U L E	I. IF THE POSITION FITS THE DEFINITION OF:	THEN - II. POSITION IDENTITY WILL BE ESTABLISHED:	III. AND ESTABLISHED IDENTITY WILL BE ENTERED IN:
(a)	ROTATION BASE REQUIREMENTS	AS PRESCRIBED IN THE GOVERNING HQDA DIRECTIVE, AS AMENDED	DA FORM XX
(b)	CAREER PROGRESSION REQUIREMENTS		
(c)	NO QUALIFIED CIVILIANS AVAILABLE		
(d)	NO WARRANT OFFICER SPECIALTY AVAILABLE	AS COMMISSIONED OFFICER, AND HQDA WILL BE NOTIFIED*	

* Notification to HQDA will be prepared and submitted as prescribed in paragraph 2-7 of this Handbook.

POSITION IDENTIFICATION PROCESS SUMMARY

For use of this form see DA Pam 570-X Proponent agency is DCSPER

1. ORGANIZATION		2. TDA/MTOE	3. CCNUM	4. EDATE
5. POSITION DESCRIPTION		6. PARAGRAPH	7. LINE	
8. PART I - DETERMINE IDEAL IDENTITY				
	TABLE	RULE	SCORE	POSITION IDENTIFICATION
				(√) CATEGORY
a. STEP 1 DISTINGUISH BETWEEN MILITARY & CIVILIAN	3-1			MILITARY
				CIVILIAN
				NOT YET FINALIZED
	3-2			MILITARY
				CIVILIAN
b. STEP 2 IDENTIFY OFFICER AND ENLISTED	3-3			COMMISSIONED OFFICER
				WARRANT OFFICER
				OFFICER
				ENLISTED
				NOT YET FINALIZED
	3-4			COMMISSIONED OFFICER
				OFFICER
				ENLISTED
c. STEP 3 DISTINGUISH BETWEEN COMMISSIONED AND WARRANT OFFICER	3-5			COMMISSIONED OFFICER
				WARRANT OFFICER
				NO WAR. OFF. SPECIALTY
9. PART II - EXAMINE FOR ALTERNATE IDENTITY				
REASON	(√)	TABLE	AUTHORITY	POSITION IDENTIFICATION
				(√) CATEGORY
ROTATION BASE		3-6	HQDA:	COMMISSIONED OFFICER
CAREER PROGRESSION			HQDA:	WARRANT OFFICER
NO QUALIFIED CIV. AVAILABLE			HQDA:	ENLISTED
NO WARRANT OFF. SPECIALTY AVAIL.				
EFFECTIVE MPWR. RESOURCE MGMNT.			PARAGRAPH AR 570-4	CIVILIAN
10. FINAL IDENTITY (COMM. OFF., WO., ENL., OR CIV.)	11. CODE	12. NAME & GRADE OF ANALYST		13. SIGNATURE
14. DATE				

APPENDIX B

EXAMPLE - REVIEW OF MACOM AND ARSTAF INPUTS TO
THE POSITION IDENTIFICATION HANDBOOK

GENERAL RESEARCH



CORPORATION

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3 September 1980
(Revised)

MEMORANDUM FOR: Colonel O. A. Massey
Contracting Officer's Representative
DAPE-MBU
Department of the Army
Washington, D.C. 20310

SUBJECT: Review of MACOM and ARSTAF Comments on
The Position Identification Handbook

A review of the MACOM and ARSTAF comments provided as Enclosure 2, DAPE-MBU letter, subject: Quantitative Procedures for Position Identification Definition, 19 August 1980, has been completed.

It is our understanding that a recommended position (DAPE/GRC) will be presented to the SAG at the scheduled meeting of 3 September 1980. Recommended positions were developed in joint session (DAPE/GRC) 28 August 1980. This memo synthesizes results of the meeting.

It is clear from the responses that field activities vary widely in their understanding of the problems the Handbook is designed to resolve. We believe it would greatly enhance understanding if a copy of the GRC Final Report (1071-01-79-CR) were distributed to all Army MACOMs and field activities to be used as a reference document.

Comments by MACOM and ARSTAF:

1. Office of the Chief of Engineers.

- Simplify approach. Done in part. This effort will continue throughout the contract.
- Eliminate Tables 3 and 6. Believe they must be retained to maintain logic sequence and establish required record of decisions made.
- Eliminate factor Unusual Hours and Working Conditions. Factor is one recognized in DOD Directive 1100.4 and is useful in documenting certain required military positions.

2. US Army Health Service Command.

- Does not "fit" the Army Manpower Management System. Imposed restraints are overriding. This fact is recognized and discussed at length in the GRC Final Report at pages 1-10, 2-11,

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and 2-18. The procedure is intended to establish "ideal" identity and fully recognizes management constraints that must be applied to arrive at an alternate identity. The documented record of reasons for the ideal identity should provide the Army with the credible data for defending the required mix of resources by category to perform the Army mission.

- Leaves major commands and Army out of the on-site evaluation process. On the contrary, the documentation provided by this disciplined system will enhance the ability of HQDA and field commands to review the specifics of position identification, control, and audit consistent application.
- Would require 10 MYs to implement. It is recognized that the initial implementation could require the expenditure of additional resources but it is believed that this impact can be minimized by a time-phased implementation schedule. Once the system is fully implemented it should require minimum maintenance since, once coded properly, positions will tend to remain stable, and the Army manpower posture will be considerably more defensible in Congress, OSD and OMB.
- The narrative portion of the Handbook should be incorporated in AR 570-4. Agree. Incorporate.
- Quantification desirable, but not a panacea. Agree. We have attempted to use quantification to assist the technician in the application of his subjective judgments to obtain a more credible, regularized, and objective result in the identification process.

3. US Army Communications Command.

- Limited utility at MACOM level. The Handbook is intended for use at all levels. It is believed that the documentation provided wherein all positions are identified by category by a specific set of rules will measurably enhance the Army's capability to defend its resource requirements. At MACOM level such documentation will permit audit and control of position identity in a consistent manner.
- In almost all cases the identity of positions is obvious. There is merit in a process or procedure that is disciplined, regularized, and documented for ease of audit and control. The CSA mandate to develop an improved identification process was undertaken precisely because that process is neither obvious, well disciplined, regularized, or well documented to support the Army Manpower Program.

- Identity is dictated by resource availability. This point is recognized. See discussion in GRC Final Report, pages 1-10, 2-11, and 2-18. Management constraints are fully considered by the process and are designed to support alternative identification of positions when the ideal identity cannot be assigned because of resource and dollar constraints.

4. . TRADOC.

- No problem with the current system. Problems with the current system are, in fact, the genesis of the quantitative position identification project. The CSA mandate specifies: "Techniques and procedures for demonstrating the Army's needs in the programming and budgeting cycle are fundamental to justifying officer requirements to OSD and the Congress. A comprehensive review of these procedures and development of new techniques and displays are required to gain recognition of Army's officer requirements. The criteria which differentiate positions between commissioned, warrant, enlisted or civilian are key to determining officer requirements."
- Does not aid in determining the number of positions required. The Handbook is intended to provide one of the required tools for manpower managers to develop a credible requirements statement by category within any given resource posture. Inability to defend requirements by category--frequently cited by Congress and GAO--is, in fact, often at the heart of the problem of "determining and defending" the number of positions representing the individual command or total Army requirement.
- Has no real utility. Fixes position identity. Does not recognize resource limitations. The procedure is designed to take full account of managerial constraints including:
 - Career progression
 - Rotation base
 - Contingency augmentation
 - No civilians available

These resource availability considerations are applied to the "ideal" identity in arriving at the alternative identity essential to accommodate such constraints. As for the use of military positions when "a civilian position is more desirable" (as hypothesized by TRADOC) that procedure may directly contribute to the consistent problems cited in the CSA mandate as "fundamental to justifying" requirements to OSD and the Congress. The defensibility of any such procedure appears in serious jeopardy since it may:

- Undermine the validity of both military and civilian manpower programs presented to OSD and the Congress.
- Conflict with the basic DOD mandate that civilian employees will be used unless there is a specific defined requirement for a military incumbent.
- Conflict with the basic Army and DOD mandate that shortages of funds, civilian manpower spaces or other limitations on authority to hire civilians are not valid reasons for designation of a position for military incumbency.
- Makes no allowance for mixed civilian/military workforce for similar positions. This comment may suggest a requirement for an additional factor to identify civilian positions for reasons of continuity and corporate memory. The Handbook was developed with a principal assumption consistent with DOD and Congressional intent that all positions are civilian except for those that are required to be military for specific reasons. While the thrust of the TRADOC comment is not completely clear in terms of the nature of the "mix" sought, a number of agencies have noted the absence of sufficient emphasis upon the continuity and enhanced corporate memory provided by a civilian nucleus in the face of the high mobility characteristic of military incumbents. Addition of an appropriate factor to those already contained in the Handbook will be considered.
- Score weighting of "Current Military Background/Training Required" precludes civilian staff in certain positions. Our review of subfactor values lends credence to this view. The survey to establish validated scores for all subfactors will be conducted in the near future and is expected to resolve this issue.
- Does not adequately address the differences between US and foreign national positions. This comment requires clarification. In terms of identifying positions the characteristics of civilian position are not uniquely influenced by US or foreign national identity. AR 570-4 specifies that foreign national civilian personnel provide essentially the same qualities as US civilian personnel.
- Regulatory requirements against converting civilian positions to military not adequately addressed. We are well aware of restraints referred to in this comment. It has been suggested and consideration is being given to inclusion of appropriate guidance in the Handbook.
- Point factors appear too high. Acknowledged. The survey to validate subfactors values is to be conducted in the near future and is expected to resolve this issue.
- Recommend GRC proposal not be adopted. Shortcomings discussed above must be accommodated before any tests of revised procedures are made. The shortcomings acknowledged above will be accommodated.

5 - Colonel Massey

5. FORSCOM.

- Procedure is very complex. Every effort is being made to further simplify a difficult subject. The Handbook is now in its third revision and this process will continue. The survey to establish valid subfactor values will be completed in the near future. After incorporating the data resulting from the survey the Handbook will be tested in several Army activities to determine if it, in fact, produces valid consistent results in the position identification process.
- Difficulty in understanding may lead to different conclusions. See comment above.
- No difficulty in applying AR 570-4. See response to 4, above, on same point.
- Does not indicate civilian personnel regulations governing conversion of positions has been considered. We are well aware of the restraints referred to in this comment. See response to 4, above, on same point.
- FORSCOM does not support the procedure as written. We appreciate all comments and they are being analyzed for integration into an improved procedure.

6. US Army Recruiting Command.

- Resource availability rather than identity criteria controls. It is recognized as indicated in earlier comments that resource availability is a compelling managerial constraint. However, it is believed that a credible system as proposed will provide the Army a powerful tool in correcting imbalances by category in the planning and budgeting process. (NOTE: The USAR recruiters referenced in this comment should, at minimum, be dual status Reserve Technician positions, or section 265 man-year positions).
- Procedures for converting positions should be addressed. The documentation provided by this system should permit top Army managers to develop meaningful programs to adjust resource imbalances. A reference to the constraints on converting positions will be included in the Handbook.
- The Handbook is seen as a viable management tool. Acknowledged.

7. Japan IX Corps.

- One document coverage is excellent. Acknowledged.
- Overdefinition is extremely burdensome. Every effort is being made to further simplify and refine the process. These actions to simplify and refine will continue through the contract effort to ensure maximum utility.

6 - Colonel Massey

- Factors/subfactors are considered substantially similar to those in present publications. The statement is accurate. It reflects our intent to consolidate all pertinent information in a single document organized for use in a disciplined procedure designed to produce valid and consistent results in the position identification process.
- Not "easy to read." The Handbook is now in its third revision and this process will continue throughout the contract. Our goal is to integrate the various useful comments from reviewers to reduce both the complexity and time required in the application process.
- Eliminate Chapter 3 and tables. We believe the decision logic established by the step-by-step approach and the recorded decisions provided by this sequence are essential elements of a disciplined and credible position identification process.
- Separate subfactors by military category. The organization of the subfactors is believed consistent with the steps required in the process.
 - First, identify military or civilian.
 - Second, identify within military--officer or enlisted.
 - Third, identify within officer, commissioned officer or warrant officer.

8. Military Traffic Management Command.

- Reading level should be reduced to 9th to 11th grade level. This action is complete and approved by TAGO.
- Clarification needed in security subfactors. Questions posed and answered below:
 - A gate guard controls traffic--does he also prevent crime by keeping out unauthorized persons? Yes--and the tables allow time to be apportioned accordingly.
 - Guards perform perimeter patrol; do they also prevent crime at the same time? Yes--and the tables allow time to be apportioned accordingly.
 - Fire watch--is this performed by security personnel only or does it apply to the fire department? Subfactor being redefined. See 23, below.
- If the function is not covered in the Handbook . . . it should be delineated for civilian incumbency. The procedure is intended to be applied to all positions without regard to function, except in those instances in which a function is uniquely military. Some of the latter have been identified from time to time either specifically (i.e., security, discipline, combat) or generically (i.e., tasks which if not performed could cause direct impairment of combat capability).

All functions are evaluated in those contexts--that is, both the tasks and the current and forecast conditions of employment are considered. The Handbook is dedicated to the correct category identification of positions, not just functions. That categorization process under current directives does not rely solely upon the tasks performed in a given position--and the categorization process would not rely exclusively upon that aspect under the Handbook methodology. The conditions of employment are often at least as important as the tasks performed if we are to assure accurate category identification.

- One year from the effective date of the Handbook to convert positions. It is believed that this is a mistaken impression based on the exclusion for a one-year period of positions that are specifically designated in current Army directives. The provision was not intended to direct any conversion but to set a time limit for application of the Handbook procedure to positions now explicitly placed by direction in a specific manpower category under the terms of a variety of Army regulations.

9. US Army Criminal Investigation Command.

- Factors/subfactors are unnecessarily complex and difficult to apply. See earlier comments on continuous efforts to simplify and improve utility. The requirement to allocate a percentage of time worked in a given subfactor under table 2 requires familiarity with the work center as prescribed in the Handbook.
- No flexibility on civilian/military mix of similar positions. See 4, above, on the same point.
- Requires intimate knowledge of position content. This statement is accurate and we believe knowledge of the duties of a position is necessary to a credible procedure. The requirement for such knowledge is not considered a weakness of the Handbook.
- Precludes manpower/personnel office centralization of position identification effort. It is envisioned by GRC that the procedures would be applied by manpower/personnel office technicians. Familiarity with other similar systems suggests that a period of indoctrination will be required and some variance of standards may have to be accepted during the early stages of implementation. One excellent example is the Factor Evaluation System now being implemented in the Civil Service.
- May create double jeopardy due to resource constraints. See earlier comments on managerial and resource issues.

10. US Army Military District of Washington.

- Concur. Acknowledged.

8 - Colonel Massey

11. WESTCOM.

- Other than providing a score system, the proposed Handbook does not significantly improve current procedures. See earlier comments on the utility of a disciplined, credible procedure that provides an auditable record of specific reasons for position identity. Further, the definitions which focus upon the identification of officer positions are not now found in Army directives and are directly responsive to the CSA mandate which caused the current effort to be undertaken.
- Intelligence subfactors point scores need revision. Agree. Survey to validate and refine all subfactor values will be conducted shortly.

12. Research Studies Office.

- Adequate for purpose intended. Acknowledged.
- Require Adjutant General edit draft pamphlet. Complete.
- Suggest the figures in the Work Time column on page 3-3 be made consistent with other tables. Will be accommodated in subsequent revisions.

13. Study Program Management Office.

- Concur. Acknowledged.

14. US Army Logistic Center.

- Definition of "current military background/training required" missing. Incorrect. Definition is in the Handbook.
- Reconcile rule number and alphabetical references. Completed.

15. Military Personnel Center, Enlisted Division.

- Recommend revision to CONUS rotation base wording. Agree. Will include wording provided in next revision.

16. Chaplain.

- Does not address professional branches. Wording will be changed in factor, Military By Law or Treaty, to clearly specify military officer required for all positions included in the special branches of the Army. They include each corps of the Army Medical Department, the Judge Advocate General's Corps, and the Chaplains.

9 - Colonel Massey

- Factors specifically addressing professional branch requirements should be incorporated. See above.
- "Current Military Background/Training Required"--an additional example should be added. Not appropriate or necessary. The positions involved are statutory and their delineation should rest on that fact. Unless the positions concerned do fall within the statute, there is no basis for using an alternative criteria (i.e., background/training) to "substitute" for the statute.
- Change Chaplain's Assistant to Chapel Activity Specialist. Agree. Will include wording in next revision.

17. Adjutant General, Resource Management Directorate.

- In general, concurs. Acknowledged.
- Club management should be identified as primary duty - full time military positions. Agree.

18. Military Personnel Center, Military Occupational Development Division.

- Amend to include reference to commissioned officer specialty codes. Agree. Will be added to Handbook.
- Review paragraph titled "Unusual Hours or Working Conditions." We believe this factor takes into consideration points raised. It is a factor recognized and set forth in DOD Directive 1100.4 and is useful in identifying certain military required positions.
- The officer or warrant officer point scores require review and adjustment. The survey to validate the scores for all subfactors will be conducted in the near future and is expected to resolve this issue.
- Reference to DA Circular 611-12 should be amended to read "published in a DA Circular in the 611 series." Agree.

19. Surgeon General.

- Specific application is not clear; Manpower Survey Teams, and Manpower Managers. The intended use of the Handbook and the information produced by the procedure is at all levels by all personnel involved in the manpower management process. Staffing is continuing and the resulting refined Handbook will be objectively tested in selected Army activities of varying types and sizes.

- Application at any level will be extremely time consuming. We believe that once manpower technicians are familiar with the procedure, time consumed will be minimal. It is recognized that the initial application could require significant resources; to avoid that, recommend a time-phased implementation.
- Meaningful factors required for war needs and for differentiation between civilian and military positions within the Army Medical Department. Revision to the factor, "Military By Law or Treaty" (see 16, above) should materially assist in identifying medical officer requirements. The factor "Pretrained Contingency/Wartime Augmentation" is, in fact, to be controlled by HQDA and should assure full provision for wartime needs.
- Extensive coordination required. It is recognized that extensive coordination is required. It is underway.
- A position change must consider the availability of interested individuals. See factor "No Qualified Civilians Available."
- Changes in AMEDD-TOE require the approval of the Academy of Health Sciences and OTSG. See discussion in GRC Final Report, pages 2-24 through 2-26, and Section 3, Recommended Structural and Methodological Modifications. Absent changes recommended therein, clearly the required approval/coordination is a legitimate managerial constraint.
- Future military/civilian manpower and funds reductions must be considered. See earlier discussion on resource constraints.
- Reclassification of positions from civilian to military identification requires DA approval. Agree. See earlier discussion.
- Paragraph on "Pretrained Contingency/Wartime Augmentation" is confusing. Agree. Revision will include clear language.
- Characteristics misspelled. Corrected.
- Application of the Handbook would be confusing and may well require dramatic restructuring of AMEDD position posture. Every effort is being made to further simplify and improve the procedure. In the near future a survey will be conducted to validate all subfactor values. Additionally, a broad based, statistically sound test to determine the validity and consistency of position identity resulting from the application of the procedure to selected Army activities will be conducted. Throughout this process improvements will be introduced to ensure a credible methodology is finalized before any planned/phased implementation.

11 - Colonel Massey

20. Army Reserve, Personnel Division.

- Procedure would also have application to Army Reserve positions. The Handbook was not specifically designed to apply to the Army Reserve, however, we believe it has potential for such application. The Handbook already so states. Definitive guidance for such application to Army Reserve and National Guard positions has been deferred for consideration at a later date.

21. Deputy Chief of Staff for Research, Development, and Acquisition, Programs and Budget Division.

- Concur. Acknowledged.

22. Civilian Personnel, Position and Pay Management Division.

- "Pretrained Contingency/Wartime Augmentation" . . . designate for military. The comment refers to inconsistency within the factor definition. The inconsistency is not apparent. Clarification is requested.
- "External Military Requirement" and "External Civilian Requirement" factors should include guidance to and identify DA personnel who will designate. The Handbook probably should not become a source authority for tasking, identity, and policy guidance of functional managers. Recommend reconsideration.
- "Security" and "Intelligence" factors; recommend change of wording in first sentence, ". . . if delayed or not performed . . ." Words are considered appropriate as written; suggest review of discussion provided in GRC Final Report, sections 1 and 2. As for functions which will be performed by security and intelligence personnel within a combat theater, specific identification is provided in factors "Combat," "Combat Support," and Combat Service Support.
- Application will probably result in militarization of a significant number of Intelligence and Security employees. See earlier discussion on the survey to validate subfactor weights. We believe this validation survey and the later scheduled field test of the procedure will resolve this issue.
- Unusual Hours or Working Conditions; recommend authority be delegated to MACOM. Agree.

23. Director of Human Resource Development, Law Enforcement Division.

- "Security" subfactors require clarification and redefinition. The following revision of subfactors is proposed in response to the Law Enforcement Division recommendations:
 - Secure nuclear weapons, command posts, troop installations.

12 - Colonel Massey

- Supervise prisoners.
- Perform police patrol and police desk operations.
- Prevent/investigate crime; cooperate/coordinate with civil police authorities.
- Control/issue ID documentation. Perform physical security planning and inspection.
- Control traffic; investigate traffic accidents.

Scores to be assigned these subfactors would be validated during the impending validation survey. Recommend further coordination with the Law Enforcement Division to finalize subfactors and assure their conformance with CITA program rules prescribed in DA Cir. 235-1.

24. Comptroller of the Army, Resource Policy and Financial Planning.

- Term Middle Management can have different connotations depending on level. Consideration is being given to addition to the Handbook of more precise definition of the term.
- No factors to distinguish between US Direct Hire, Direct Hire Foreign Nationals, and Indirect Hire Foreign Nationals. No effort has been made to distinguish between categories of civilians and none seems required for the purposes intended for the Handbook. See 4, above, TRADOC, comment, and GRC Final Report, page 1-3, citing OSD definition.
- Procedure will require maintenance of at least one piece of paper for each position in the active Army. Agree. It is considered to be one of the advantages of such a system and it will permit audit and control to ensure consistency and credibility.
- No discussion of the derivation and rationale for point values assigned to each subfactor. A survey will be conducted in the near future. This survey is expected to resolve issues related to this point.
- Delete, "These procedures are designed to accomplish missions through economic and effective use of personnel." Accurate identification of positions will, indeed, promote economic and effective use. That assertion should be retained for its value in reviews conducted by Congress, OSD and OMB.

25. Deputy Chief of Staff for Logistics, Programs and Management Division.

- Concur. Acknowledged.

13 - Colonel Massey

26. National Guard Bureau, Manpower Division.

- Negative. Noted. While the Handbook as currently written was not designed for specific application to the National Guard, it should have general application to all Guard and Reserve positions.

27. Judge Advocate General, Personnel Plans and Training Office.

- Positions designated by the Judge Advocate General be filled by a judge advocate are delineated as military. See 16, above; comment on revision to the factor, Military By Law or Treaty, which will clearly identify members of Judge Advocate General's Corps as military. Also see discussion in GRC Final Report, pages 2-31, through 2-34.

28. US Army Intelligence and Security Command.

- Concur. Acknowledge.

29. US Army Materiel Development and Readiness Command, Director of Personnel, Training, and Force Development.

- General comments. Acknowledged.
- Add a chapter/paragraph on basic policy requirements applicable in delineating military and civilian positions. Agree.
- Delete portion of the Handbook dealing with military incumbency of CITA positions. The GRC Final Report considers the Congressional edict on ". . . least costly manpower. . .," the provisions of OMB Circular No. A-76, DOD Directive 4100.15, DOD Instruction 4100.33, and the provisions of DA Circular 235-1 in the establishment of definitions and guidance provided in the Handbook. The definitions cover the broad category of Commercial Industrial Type Activities (CITA). The withdrawal of military positions from activities/functions selected for CITA reviews is a managerial constraint that need not preclude the identity of required military positions under the specific criteria set forth in the broader context of CITA.
- Point scores for "Security" subfactors are too high. Agree. See earlier discussion on the survey to validate subfactor values. The survey results are expected to resolve this issue.
- Point scores for "Intelligence" subfactors are overweighted. Agree. See preceding discussion on security.

- Factors are not related by weight determinations to administering logistics, procurement, acquisition, research, development, test and evaluation skills. The factors/sub-factors recognized in higher authority directives as pertinent to identification of military requirements have been documented. The Handbook is intended to be applied on a position-by-position basis to permit isolation of the specific factors/subfactors that justify military incumbency of positions. The underlying assumption (consistent with the intent of Congress and the Department of Defense Directives) is that all positions are assumed to be civilian unless specifically justified as military. As discussed in 8, above that specific justification is at least as heavily dependent upon the conditions of employment of a given position, as it is upon tasks performed. Positions in combat support and combat service support activities mentioned in the DARCOM comment, are of course required to be military positions--including administrative, logistics, and similar functions.
- Factors do not distinguish between officers with professional designations and their civilian counterparts. The factor "Military By Law or Treaty" is being revised to ensure identity of all special branch positions as military. See 16, above.
- Need for close coordination among the force development, military personnel and civilian personnel functions. Agree. Maximum exposure and coordination will be given to the Handbook.
- Anticipate difficulties in the introduction of new procedures. The utility of MACOM and ARSTAF comments in the elimination of unclear text and procedures in the Handbook cannot be overstated. The survey of subfactor values and the test of the procedure in a selected number of Army activities to ensure valid and consistent results are expected to provide additional data to improve the effectiveness and credibility of the Handbook.
- Provisions for training in the use of the Handbook. Agree. The implementation plan will address this important issue.



Jack I. Posner
Associate Director
Management and Organization

APPENDIX C

ANALYSIS AND RECOMMENDATIONS BASED
UPON SURVEY RESULTS

GENERAL RESEARCH



CORPORATION

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(703) 893-5900

19 November 1980

MEMORANDUM TO: Colonel O. A. Massey
Contracting Officer's Representative
DAPE-MBU
Department of the Army
Washington, D.C. 20310

SUBJECT: Analysis of the Survey of Position Identification
Subfactors (Contract MDA903-80-C-0324)

We recommended in our survey analysis plan (Enclosure 1) that 125 respondents be surveyed. This allowed a 20% loss rate due to absenteeism and other conditions. A minimum sample size of 100 valid surveys was required. A total of 105 valid surveys were completed.

- Only 121 rather than 125 respondents completed surveys. Cause: absenteeism.
- Visual inspection revealed six surveys were either largely incomplete, erroneously completed, or prepared by disqualifiable respondents. They were rejected and are referenced herein as Category III surveys.
- Initial analysis of scoring trends and respondent comment in 10 additional surveys indicated gross lack of understanding of survey instructions and objectives, or apparent individual bias so severe as to warrant disqualification (i.e., respondent scores indicated there should be no civilian positions in the Army, or no enlisted positions in the Army, or used a consecutive numbering scheme having no apparent relationship to the rank ordering of subfactors). They were rejected and are referenced herein as Category II surveys. While Category II survey data have been separately analyzed, they were not considered in reaching our final conclusions on factor/subfactor/score revisions predicated upon valid (Category I) survey results.
- Examination of the 105 remaining surveys revealed errors and omissions warranting disqualification of responses on selected subfactors. No apparent pattern emerged in these errors and omissions. While these individual responses on selected subfactors were rejected, the remaining responses in all 105 valid surveys have been used in reaching our final conclusions on factor/subfactor/score revisions predicated upon survey results.

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19 November 1980

Our minimum sample size of 100 valid surveys has, accordingly, been achieved. Our recommended factor/subfactor/score revisions to the Position Identification Handbook predicated upon valid survey results are set forth in Enclosure 2, which consists of the four parts described below. Enclosure 2 is intended as a quick reference synthesis of the detailed analysis contained in subsequent Enclosure 3, and it should be read in that context.

- Part 1: Recommended changes in the narrative definitions of the following factors, and in the subfactors and scores associated with them, now appearing in the Position Identification Handbook:

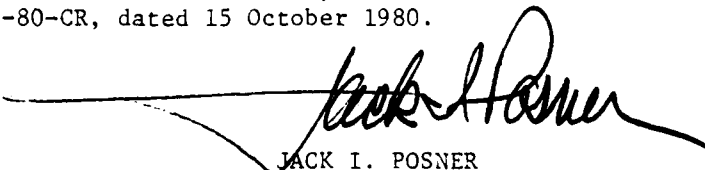
- TRADITION OR CUSTOM
- AUTHORITY AND DISCIPLINE

- Part 2: Recommended changes in subfactor alignment and point scores for each factor appearing in Table 3-2, Point Score Identification of Military and Civilian Positions, in the Position Identification Handbook.

- Part 3: Recommended changes in subfactor alignment and point scores for each factor appearing in Table 3-4, Point Score Identification of Officer and Enlisted Positions, in the Position Identification Handbook.

- Part 4: Recommended changes in subfactor alignment and point scores for each factor appearing in Table 3-5, Point Score Identification of Commissioned Officer and Warrant Officer Positions, in the Position Identification Handbook.

Note that the results of the recommendations in Part 1, above, are incorporated in the recommended table revisions appearing in Part 2. Note, further, that immediately upon receiving the concurrence of the COR, we are prepared to furnish an appropriately revised Position Identification Handbook incorporating all of the revisions recommended in Parts 1 through 4. To expedite that coordination and concurrence process, we have taken the liberty of furnishing a copy of this memorandum to Dr. Gilbert, HQDA(PERI-IL). As you are aware, the revision of the Position Identification Handbook predicated upon survey results is a condition precedent to successful execution of the expanded field test detailed in our Report 1165-02-80-CR, dated 15 October 1980.



JACK I. POSNER
Associate Director
Management and Organization

Enclosures: as stated

ENCLOSURE 1

GRC MEMO DATED 29 AUGUST 1980

PROPOSED TEST PLAN ANALYSIS

GENERAL RESEARCH



CORPORATION

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29 August 1980

MEMORANDUM FOR: Colonel O. A. Massey
Contracting Officer's Representative
DAPE-MBU
Department of the Army
Washington, D.C. 20310

SUBJECT: Proposed Test Plan Analysis (Contract MDA903-
80-C-0324, expiring 28 February 1981)

The attachment describes our plan for analyzing results of the
of Position Identification Factors. Our survey questionnaire and
method/locations for conduct of the test were forwarded with our
of 25 August 1980.

As agreed in our discussions of the last few weeks, and subject to
the concurrence of Dr. A. Gilbert, HQDA (PERI-IL) and final decision actions
by your office, these documents should effectively finalize the quantitative
scoring validation plan which represents the essential first phase of the
test plan under the subject contract.

To expedite final review, copies of our referenced 25 August memoran-
dum were forwarded to Dr. Gilbert. We have taken the liberty of furnishing
copies of the current memorandum to his office for the same purposes.

Jack I. Posner
Associate Director
Management and Organization

Enclosure

CF: HQDA, PERI-IL (Attn: Dr. A. Gilbert)
HQDA, DAPC-MSP (Attn: Mr. M. Burger/Dr. C. Walker)

ANALYSIS PLAN FOR THE SURVEY OF POSITION

IDENTIFICATION FACTORS AND SUBFACTORS

GRC has developed a questionnaire to be given to Army manpower managers to assist in the refinement of the Position Identification Handbook. The knowledge and judgment of this group of experts will be used in determining the numerical values for each of the subfactors¹ used in the three point scoring tables in the handbook. This paper provides a detailed description of how responses will be analyzed for use in the handbook.

The questionnaire makes use of scaling techniques in order to differentiate various factors on:

- A military/civilian scale (militariness)
- An officer/enlisted scale (officership)
- A commissioned officer/warrant officer scale (commissioned)

The questionnaire makes use of the Likert scaling technique. Each scale is presented with an explicit intensity structure that can be translated into numerical codes for use in determining point scores. The scaling procedure permits the assessment of factors in terms of their importance in determining military incumbency or categories of military incumbency. This approach is consistent with the methodology previously used by GRC for assigning weights to factors based upon their

¹As recommended by MILPERCEN survey authorities, the term "factor" is used in the questionnaire in lieu of the term "subfactor." This usage is seen as improving respondent comprehension for purposes of questionnaire administration only. In that light, the term "factor" is used throughout the remainder of this paper discussing the questionnaire.

relative location on a continuum.¹

RESPONDING TO THE QUESTIONNAIRE

The revised questionnaire is attached.² Respondents provide information on:

- Their background (grade/rank, organization, and years of manpower experience).
- Whether they have read the draft Handbook.
- Thirty-four factors against a "militariness" scale.
- Twenty-four factors against an "officership" scale.
- Fourteen factors against a "commissioned" scale.

Respondent data will be converted to various numeric codes for automated analysis.

Figure 1 describes the process for converting respondent data to numeric codes.

COLUMN	DESCRIPTION
1-3	Respondent case number
4-6	Civilian grade or military rank (Gxx, Oxx, Wxx, Exx)
7-8	Organization (Codes to be assigned)
9-10	Years of manpower management experience
11	Have you read the draft position identification handbook? (0=no, 1=yes)
12-79	Response to the 34 "militariness" factors (See Figure 2 for codebook assignments)
80-127	Responses to the 24 "officership" factors (See Figure 7 for codebook assignments)
128-155	Responses to the 14 "commissioned" factors (See Figure 8 for codebook assignments)

Figure 1. Survey Codebook Instructions

¹Posner, et. al., Quantitative Procedure for Position Identity Definition, General Research Corporation, 1979, p.D-9.

²MILPERCEN has assigned a survey control number. A MILPERCEN representative has informally advised that the questionnaire fully satisfies Army standards of formatting and structure.

Figure 2 illustrates the codebook assignments for the conversion of respondent entries on the militariness scale. The scale positions are assigned numeric codes from 30 for the highest factor under "mandatory military" to 1 for the lowest factor under "not military." This code assignment is simply for ease of data entry and does not relate to the point scores that will result from the analysis. Similar numerical assignments will be made for the officership and commissioned scales.

Figures 3 and 4 illustrate how the data will be transferred from the questionnaire to a codesheet. Figure 3 is a hypothetical set of responses for the militariness scale. Notice how the factors are scattered over the scale with several factors determined to have the same importance. Figure 4 provides an illustrative sample codesheet for this set of responses.

For example, four of the defined ranges on the militariness scale are clearly capable of delineating a factor as military. These are "Mandatory Military," "Very Military," "Military," and "May Be Military." Each of the defined ranges is divided into five boxes to allow respondents to weight the relative importance of factors more precisely. Respondents can indicate that a factor falls within a particular defined range. They can concurrently indicate their view of the relative "fit" in terms of the distinctive defined range definition, through selection of one of the five vertically arrayed blocks within each defined range.

The defined ranges--explicitly or implicitly--broadly describe the amount of work time necessary for a factor to fall within their purview. These times run from any significant time through full time. Table 1 converts those explicit or implicit descriptions to numerical equivalents expressed as percentage time ranges/values. For example, any significant time converts to a range of 5% to 25% of total work time.

Subject to final analysis of responses to the questionnaire, the midpoint of the "May Be Military" category might well define the minimum

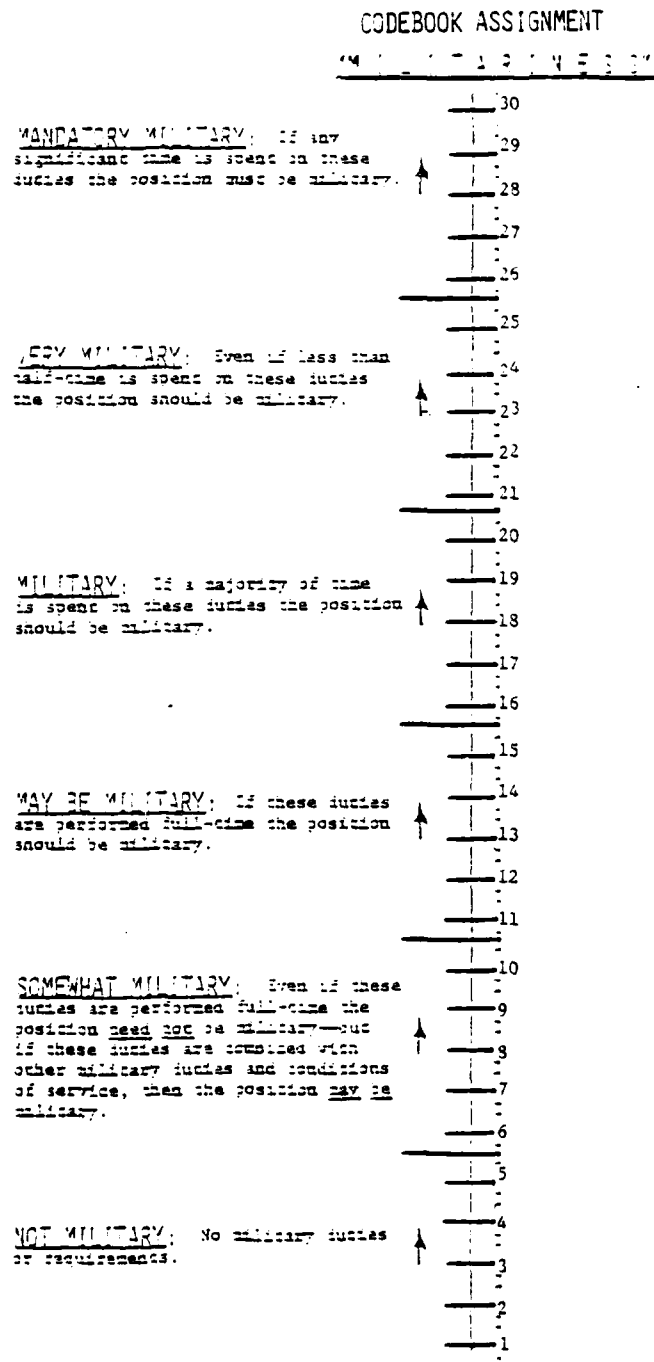


Figure 2: Codebook Assignments for the Militariness Scale

"MILITARINESS"						
MANDATORY MILITARY: If any significant time is spent on these duties, position must be military.	↑	7	10			
		29				
VERY MILITARY: Even if less than half-time is spent on these duties, the position should be military.	↑					
		6				
MILITARY: If a majority of time is spent on these duties, the position should be military.	↑	34				
		4				
		1	23	31		
		33				
		24				
MAY BE MILITARY: If these duties are performed full-time, the position should be military.	↑	22	32			
		13				
		3	27			
		25				
		18	21			
SOMEWHAT MILITARY: Even if these duties are performed full-time, the position need not be military—but it may be combined with other military duties and conditions of service.	↑	8	16			
		5				
		2				
		15	23			
NOT MILITARY: No military requirement.	↑	12				
		20				
		17				
		9	19			
		11	14	26	30	

Figure 3. Illustrative Set of Questionnaire Responses

1. Respondent case number	0
	0
	1
2. Grade or rank	G
	1
	3
3. Organization	X
	X
4. Years of manpower management experience	0
	8
5. Have you read the draft position identification handbook?	1
6. Factor 1	1
	8
7. Factor 2	0
	8
8. Factor 3	1
	3
9. Factor 4	1
	9
10. Factor 5	0
	9
11. Factor 6	2
	2
12. Factor 7	3
	0
13. Factor 8	1
	0
14. Factor 9	0
	2
15. Factor 10	3
	0
16. Factor 11	0
	1
17. Factor 12	0
	5

Figure 4. Sample Coding Sheet

or cut-off value necessary to justify military incumbency. Were this the case, a factor evaluated at this point on the scale would, standing alone, require military incumbency if the duties described by the factor were performed 100% of the time. Any factor rated below this point, then, would not, standing alone, warrant categorization of a position as military, even though the duties described by that factor were performed 100% of the time.

TABLE 1
DEFINED RANGE TIME REQUIREMENTS CONVERTED TO NUMERIC VALUES

<u>Defined Range</u>	<u>Narrative Time Definition</u>	<u>Equivalent Percentage Time Range or Value</u>
Mandatory Military	Any significant time	5% to 25%
Very Military	Less than half time	26% to 49%
Military	A majority of time	50% to 85%
May Be Military	Full time	86% to 100%
Somewhat Military	Full time	100%
Not Military	Full time	100%

The factors at the cut-off point that can--standing alone--delineate a position as military can be accorded the value of "X," the minimum value necessary to justify military incumbency. All factors above this point on the militariness continuum will be greater than X; all factors below this value will be less than X. The factors having values greater than X will have those values computed in terms of the amount of factor work time necessary for a position to be military. The less factor work time required to delineate a position as military, the greater the value of its position on the scale in terms of X. The value of points on the scale is inversely proportional to the time spent. For example, if 40% of factor work time is required at a particular point in the "Very Military" defined range, then:

Where W = that particular point

Then $W = X/.4$

Therefore $W = 2.5X$

Thus, $2.5X$ is the value of the militariness scale at that particular point. This methodology parallels the original techniques used by GRC for assigning values to factors that can delineate military incumbency.¹

When 100% of an individual's time will not delineate a position as military, time can no longer be used as the sole factor for assigning points on the scale. In this case W is assigned in proportion to the relative importance of that particular point to the cutoff score X . For example, the midpoint of the "Somewhat Military" category is assessed to be one-half as important as the cutoff score X . This point was therefore assigned a weight of $0.5X$. Where full-time performance of duties will not standing alone delineate a position as military, relative weights have been assigned by the GRC team through a delphic procedure. This also follows GRC's original approach in assigning weights to factors.²

Recognizing that survey results may warrant some re-evaluation of initial determinations, we have placed the value of X at the midpoint in the "May Be Military" defined range. Points on the militariness continuum have been defined according to their importance in relation to X . Table 2 shows the relationship of the midpoints of the six defined ranges on the militariness continuum. They have been explicitly defined in terms of X to be consistent with defined range definitions.

TABLE 2
X VALUE RELATIONSHIPS OF MILITARINESS DEFINED RANGES AND MIDPOINTS

<u>DEFINED RANGE</u>	<u>MIDPOINT X VALUE</u>	<u>RANGE OF X VALUES</u>
Mandatory Military	$12X$	$4X$ to $20X$
Very Military	$3X$	$2.2X$ to $3.8X$
Military	$1.6X$	$1.2X$ to $2.0X$
May be Military	$1.0X$	$.96X$ to $1.14X$
Somewhat Military	$.5X$	$.25X$ to $.75X$
Not Military	$.1X$	0 to $.2X$

Figure 5 defines 30 points on the militariness scale in terms of X . Each point has been assigned a value consistent with category mid-points and ranges.

The scale is explicitly nonlinear. Figure 5 demonstrates that about two-thirds of the X values ($0.00X$ through $2.00X$) fall within ten percent of the scale range ($0.00X$ through $20.00X$). This is a desirable scale property for our purposes. The "smaller" intervals will enable respondents to distinguish militariness with greater precision in the critical region of the scale. Criticality is greatly reduced in those regions of the scale assigned a higher multiple value of X since most positions

¹Posner, et. al., op cit, p. D-13.

²Posner, et. al., ibid., p. D-14.

CODEBOOK ASSIGNMENT		X VALUE
	30	20.00X
<u>MANDATORY MILITARY:</u> If any significant time is spent on these duties the position must be military.	29	16.00X
	28	12.00X
	27	8.00X
	26	4.00X
	25	3.30X
<u>VERY MILITARY:</u> Even if less than half-time is spent on these duties the position should be military.	24	3.40X
	23	3.00X
	22	2.60X
	21	2.20X
	20	2.00X
<u>MILITARY:</u> If a majority of time is spent on these duties the position should be military.	19	1.80X
	18	1.60X
	17	1.40X
	16	1.20X
	15	1.14X
<u>MAY BE MILITARY:</u> If these duties are performed full-time the position should be military.	14	1.07X
	13	1.00X
	12	0.93X
	11	0.86X
	10	0.75X
<u>SOMEWHAT MILITARY:</u> Even if these duties are performed full-time the position need not be military—but if these duties are combined with other military duties and conditions of service, then the position <u>may</u> be military.	9	0.63X
	8	0.50X
	7	0.38X
	6	0.25X
	5	0.20X
<u>NOT MILITARY:</u> No military duties or requirements.	4	0.15X
	3	0.10X
	2	0.05X
	1	0.00X

Figure 5. Conversion of Codebook Assignments to Values in Terms of X.

involving factors in that range will be military. We have constructed the scale to permit respondents to differentiate with precision in the immediate range about the value X.

A similar procedure was used in construction of the "officership" and "commissioned" scales. However, there is a notable difference in these scales. Work time spent performing particular tasks is not explicitly evaluated. The scales are defined in terms of an intensity structure. The intensity range uses terms such as "always," "usually," "in combination with," "not necessarily," and "do not." This is consistent with the traditional Likert scaling technique.¹

Figure 6 identifies codebook assignments and values for the officership scale. The cut-off value necessary to delineate an officer position has been defined as Y.

Clearly, scale points in the "Mandatory Officer" defined range will always delineate an officer position standing alone. Usually scale points in the "Normal Officer Requirement" defined range will have the same result -- but points in the "May Be An Officer Requirement" defined range are not capable of the result standing alone (i.e., they cannot delineate an officer incumbency requirement except in combination with other duties).

Thus, subject to final analysis of responses to the questionnaire, the codebook assignment of 18 on the officership scale is accorded the value of Y as the minimum or cut-off value necessary to justify officer incumbency.

Note that certain of the factors to be evaluated on the officership scale, such as factor 16 (advanced degree required) should always delineate a commissioned officer position. These, in turn, should fall within the "Mandatory Officer" defined range which always delineates an

¹E. Babbie, Survey Research Methods, 1973, p. 269-270.

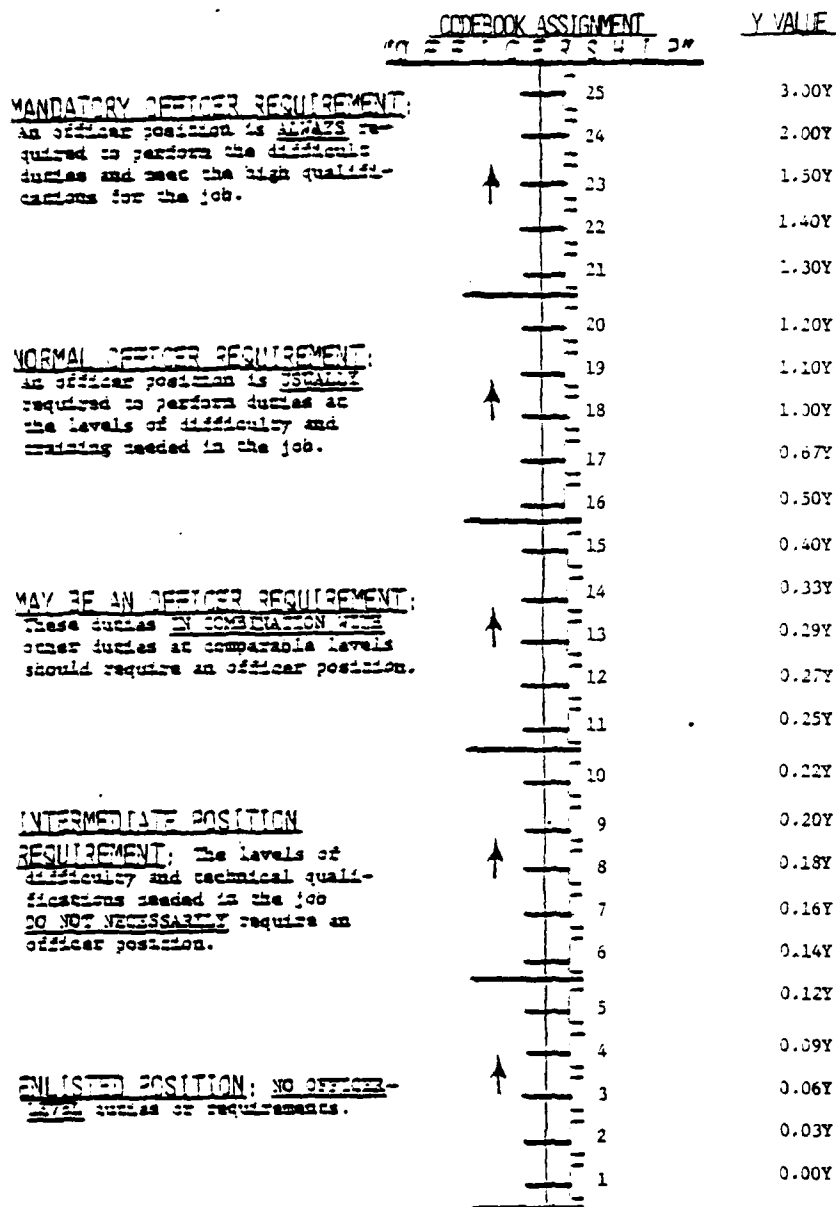


Figure 6. Codebook Assignments and Point Scores for the Officership Scale.

officer position standing alone. Based on our best judgment, and subject to final analysis of responses to the questionnaire, the codebook assignment of 23 on the officership scale -- the midpoint in the "Mandatory Officer" defined range -- can be tentatively designated as the locus of the minimum or cut-off value on the officership scale necessary to justify commissioned incumbency.

At the lower end of the officership scale, the "Intermediate Position Requirement" and "Enlisted Position" defined ranges have decreasing values in terms of Y such that the lowest scale point within the "Enlisted Position" defined range has no officership value.

Figure 7 identifies codebook assignments and values for the commissioned scale. The cut-off point between commissioned officer and warrant officer is defined by the value "Z." Points on the scale within the "Mandatory Commissioned Officer" defined range will, standing alone, require a commissioned officer. The "Usually Commissioned Officer" defined range will usually have the same result -- but points in the "May Be Commissioned Officer" defined range are not capable of that result standing alone.

Thus, subject to final analysis of responses to the questionnaire, the codebook assignment of 18 on the commissioned scale is accorded the value of Z as the minimum or cut-off value necessary to justify commissioned incumbency.

At the lower end of the commissioned scale, the "Warrant Officer" defined range has decreasing values in terms of Z such that the lowest scale point within that range has no commissioned value.

ANALYSIS PROCEDURES

The questionnaire responses will be analyzed for three types of information:

- The central tendency (or most representative value) for point scores.

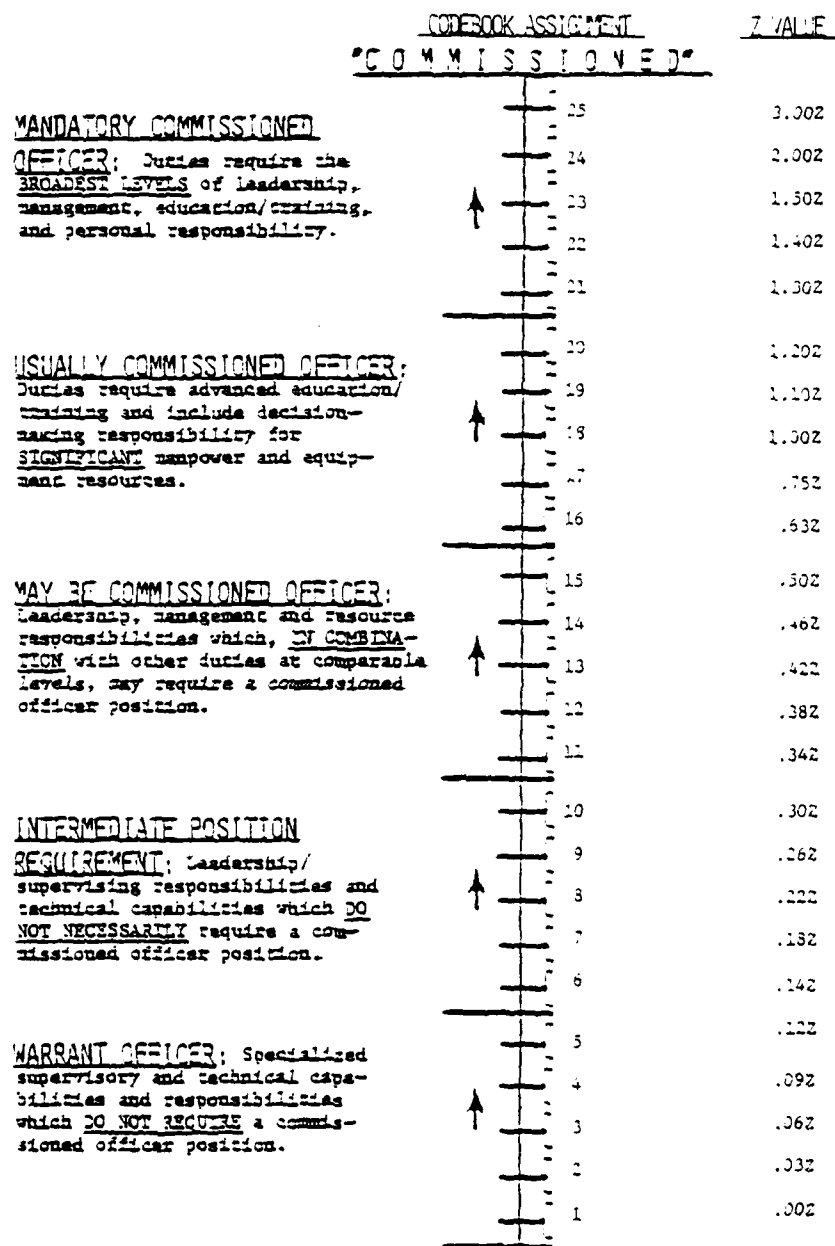


Figure 7. Codebook Assignments and Point Scores for the Commissioned Scale.

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QUANTITATIVE PROCEDURE FOR POSITION IDENTITY DEFINITION

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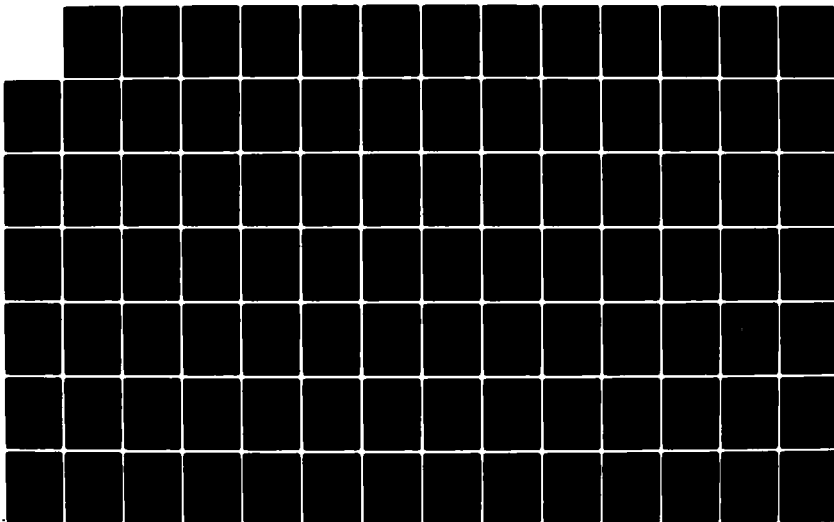
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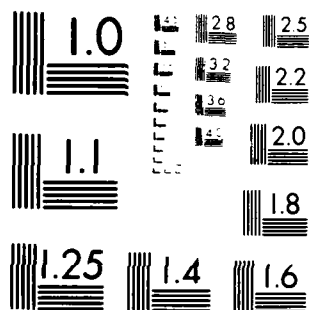
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

- The confidence level of the point scores.
- The degree of consistency found in major subgroups of the sample.

The first step will be to analyze the central tendency of values assigned to factors to determine point scores. The mean and median will be the two measures used for determining point scores. Where the values assigned are relatively normally distributed, the mean will be used. Where the values assigned by respondents are substantially skewed, the median will be used.

Figure 8 provides two illustrative cases showing how factor point scores will be computed. In both cases there are nine respondents. Their militariness scale codebook assignments, as defined in Figure 2, and the corresponding values derived as in Figure 5, when the cut-off score X is assumed to equal 100, are provided.¹ The mean, median, and standard deviation are computed. In Case 1, the nine point scores are evenly distributed about a central point and the mean and median are very close (150.4 versus 150). In Case 2, two respondents differed considerably from the majority of respondents by scoring the factor "Mandatory Military." In this case, the mean (233) is considerably above the median because of the skewed point score distribution. The median would be the preferred statistic because it provides a more representative value of the average than the mean in skewed distributions.²

The analysis of scores will proceed as follows:

- Compute the mean and median of the subfactor score.
- If the mean and median are relatively close, use the mean.

¹The assumed 100 point score value of X used here is for illustration only. The values assigned to X, Y, and Z, will be determined in the process of analyzing actual questionnaire responses.

²Snedecor and Cochran, Statistical Methods, 1972, p. 123. R. Kolstoe, Introduction to Statistics for the Behavioral Sciences, 1973, p. 78.

CASE 1			CASE 2		
RESPONDENT NUMBER	CODEBOOK ASSIGNMENT	POINT SCORE	RESPONDENT NUMBER	CODEBOOK ASSIGNMENT	POINT SCORE
1	18	160	1	8	50
2	17	140	2	26	400
3	19	180	3	28	1,200
4	19	180	4	12	93
5	16	120	5	6	25
6	18	160	6	12	93
7	15	114	7	10	75
8	17	140	8	11	86
9	18	160	9	10	75
		MEAN 150.4			MEAN 233.0
		MEDIAN 150.0			MEDIAN 86.0
		STANDARD DEVIATION 23.7			STANDARD DEVIATION 379.2

Figure 8: Illustration of Analysis Procedures: Assumed Cut-off Point
Score X=100

- Where the coefficient of skewness is significant, use the median.¹

The second procedure will be to develop confidence limits for the central tendency of subfactor point scores. These will be useful for assessing the reliability of the scores. The 95% confidence limits for the mean are determined by:

$$\bar{X} \pm 1.96 \frac{S}{\sqrt{N}}$$

where: \bar{X} is the sample average (mean or median)
 S is the population standard deviation
 N is the sample size

For factors where the median is used, the population confidence intervals are estimated by the median rank:

$$\pm 1.96 \frac{\sqrt{N}}{2}$$

For example, if N = 100, and the median is between the 50th and 51st ranked values, the 95% confidence limits would be ± 10 ranked positions. That is, for a sample of 100, the 95% confidence intervals would be determined by the 40.5th and 60.5th ranked scores.

The questionnaire will also be analyzed as to the consistency of response across major respondent characteristics. An analysis of variance test will be performed across major categories of respondents. These response categories will include:

- Military and civilian personnel
- MACOM
- Years of experience
- Those who have read the handbook and those who have not

Significant differences between military and civilian employees

¹Snedecor and Cochran, op. cit., p. 86.

and across units/activities of assignment will be identified and reported. If significant differences are identified based on years of experience, the more experienced group's scores may be chosen as the preferred set of scores. Two statistical tests will be performed focused on whether or not the questionnaire respondents have read the handbook. First, it will be determined whether respondents who have read the handbook differ from those who have not read the handbook. If this is true, a second test will be performed to determine if those point scores have been biased towards the point scores offered in the handbook.

SAMPLE SIZE

A Copy of GRC's "Rationale for a Sample Size of 100" is attached. To assure that the desired number of properly completed and useable questionnaires are obtained, GRC recommends that 125 respondents be surveyed. This allows up to a 20% loss rate due to absenteeism, invalid responses, and other conditions that may reduce the number of useable responses. It will then be feasible to administer the questionnaire directly to manpower personnel at a limited number of sites. A copy of GRC's analysis for use in selecting survey sites is attached. Directly administering the survey will improve accuracy of data collection and decrease data collection time to acceptable levels in the face of the time constraints which apply to the overall project.



1 August 1980

RATIONALE FOR A SAMPLE SIZE OF 100
(Quantitative Procedure for Position Identity Definition)

A key requirement in validating the scores we have assigned to individual subfactors in the Position Identification Handbook is to determine the number of respondents required in order to complete a statistically reliable and valid sample survey. This is not an easy question to answer. It probably cannot be answered with absolute precision in advance of the actual conduct of a survey. However, an analysis of relevant parameters in the case at hand indicates a sample of approximately 100 completed surveys obtained from knowledgeable, working manpower managers will provide sufficient accuracy for subfactor score validation. Any reservations that we collectively have with respect to the sample size can be resolved by increasing that sample size to a higher but still manageable number. Army Staff representatives have considered numbers ranging as high as 340; a sample of even that size still appears manageable and economic, assuming use of a survey conducted by mail.

The mathematics of sampling tells us that to determine sample size for estimation of a mean (score) the investigator needs to know:

- The confidence level desired for the mean (C)
- The degree of accuracy necessary to make the estimate useful (L)
- The standard deviation or degree of dispersion present in the population sampled (S)

The formula for deriving sample size (N) from these parameters is:

$$N = \frac{C^2 S^2}{L^2}$$

The confidence limits in social science research are traditionally set at 95 percent level. The value of "C" at the 95 percent level is 1.96.

The degree of accuracy (L) required or, conversely, the degree of error we can initially accept in estimating scores is supplied by the investigator. It probably is not possible to specify in advance the precise level of accuracy we must achieve in assigning scores to subfactors in order for the quantitative position identification process to generate an acceptable level of consistency and reliability. This question ultimately can be answered only in a full scale test of the quantitative methodology, after which position classifications arrived at through use of the quantitative process are evaluated for consistency and correctness. That methodology test is scheduled to be undertaken later in the current project. While those methodology test results cannot be obtained now, we probably can postulate an acceptable degree of accuracy, as follows:

- An important factor impacting upon the question of validity of basic scores assigned to subfactors in the handbook is that data other than subfactor scores are involved in selected segments of the quantitative position identification process.
- Our quantitative scoring scheme as it applies to those selected segments is designed to take account of the amount of time an individual spends performing various tasks. That is, the final score allocated by the user of our system in the case of a given subfactor distinguishing military from civilian positions is determined by multiplying the basic score assigned to that subfactor by the amount of time spent in performing the tasks described by that subfactor (i.e., basic score x % of time spent = final subfactor score).
- The data on performance time spent is likely to be only reasonably accurate. It would be reasonable to accept a 5% to 10% error--and perhaps more--in the estimate of time spent in task performance.

- Therefore, a 5% to 10% error margin in the basic score initially assigned to our subfactors appears to represent an equally reasonable bound of accuracy. Improved levels of accuracy in terms of results achieved can be sought as the quantitative process enters general use and we benefit by analysis of the results of the Army-wide application.

The "S" parameter (population standard deviation) required for estimating sample size is a measure of the degree of dispersion that exists in the population. It cannot be estimated with complete precision in advance of the survey. Various surveying techniques such as giving the survey in a controlled setting with monitors available to clarify procedures and answers questions could reduce the standard error.

It is nevertheless, possible to estimate the levels of standard error that can be tolerated in terms of the other parameters, "C" and "L." For a sample size of 100, we believe we can accept a standard error of 25.5% and derive scores to within a 5% level of error. At the 10% error level a standard error of 51.0% could be accepted. It is our judgment that these are reasonable error ranges that can be tolerated for an administered questionnaire. Based on this assessment, we recommend an assured sample size of 100, to be obtained through distribution of approximately 150 questionnaires.

* * * * *

The foregoing is based upon the following assumptions:

- All of the individuals completing the questionnaire will be manpower management authorities/technicians. That is, they will possess detailed knowledge and expertise in matters related to manpower category delineation within the Department of the Army. Thus, the survey will use a purposive rather than a random sampling technique. Respondents will be selected based upon the assumption that hand-picked experts will provide

unbiased estimates of the parameters of interest, and will provide a reduced standard error of estimation as compared to a random sampling procedure.

- The survey will contain a sufficient number of respondents by organization and manpower category to investigate the consistency of results across these categories.

ENCLOSURE 2

GRC Recommended Factor/Subfactor/Score Revisions to the
Position Identification Handbook Based Upon Survey Results

ENCLOSURE 2

PART 1

RECOMMENDED CHANGES IN FACTORS:

- TRADITION OR CUSTOM
- AUTHORITY AND DISCIPLINE

ENCLOSURE 2

PART 1: RECOMMENDED CHANGES IN FACTORS:

- TRADITION OR CUSTOM
- AUTHORITY AND DISCIPLINE

Survey scores summarized in Figures 1 and 2 demonstrate that the current Handbook definitions of the following two factors tend to lead the user to the conclusion that all of the subfactors are designed to identify exclusively military positions.

- TRADITION OR CUSTOM (Definition)
TDA positions which, by tradition or custom, have been filled by military personnel. Military identification of these positions may contribute essential "esprit" to military organizations. Or it may be a visible aspect of the position essential to the execution of the job. While other factors or subfactors listed in this Handbook may also apply to the following positions, they are examples of jobs which by tradition or custom are designated for military incumbency:
 - Aide, officer and enlisted.
 - Provost marshal.
 - Inspector general.
 - US Military Academy (USMA) professor and instructor as designated by Superintendent, USMA.
 - Secretary of service schools and colleges.
 - Command sergeant major.
 - First sergeant.
 - Band leader.
 - Band member.
 - Recruiter and military career counselor.
 - Drill sergeant.
 - Chapel activities specialist.
 - Company level supply sergeant and company clerk.
 - Honor guard.
- AUTHORITY AND DISCIPLINE (Definition)
TDA positions which require the incumbent to exercise direct military authority over military subordinates under the Uniform Code of Military Justice (UCMJ). The exercise of direct military authority and the maintenance of morale and discipline in the armed services is a function of the military leader (regardless of grade) acting on behalf of the military commander or on his own recognizance. Civilian supervision of military personnel does not include command or direct military authority. These are not functions of DA civilians. However, supervision of military personnel does not, in and of itself, justify nor require a military supervisor.

This phenomenon is demonstrated by the number of respondents who effectively scored the subfactors at or above the military-civilian break point (a score of 120), as well as by the magnitude of the effective scores they assigned. These results are graphically summarized in Tables 1 and 2.

TDA positions which, by tradition or custom, have been filled by military personnel. Military identification of these positions may contribute essential "esprit" to military organizations. Or it may be a visible aspect of the position essential to the execution of the job. While other factors or subfactors listed in this handbook may also apply to the following positions, they are examples of jobs which by tradition or custom are designated for military incumbency:

- Aldc, officer and enlisted.
- Provost marshal.
- Inspector general.
- US Military Academy (USMA) professor and instructor as designated by Superintendent, USMA.
- Secretary of service schools and colleges.
- Command sergeant major.
- First sergeant.
- Band leader.
- Band member.
- Recruiter and military career counselor.
- Drill sergeant.
- Chapel activities specialist.
- Company level supply sergeant and company clerk.
- Honor guard.

TRADITION OR CUSTOM SUBFACTORS

- Provide required military presence or the effectiveness of the position will be materially compromised.
- Provide a military presence materially contributing to the effective discharge of tasks, or the maintenance of military esprit.
- Supervise or perform work in a military organization

Survey Point	Score	Above		Below	
		Survey	GRC	Survey	GRC
480	120	X	X		
450	60	X			X
408	24	X			X

Figure 1. Score Summary - TRADITION OR CUSTOM

AUTHORITY AND DISCIPLINE

IDA positions which require the incumbent to exercise direct military authority over military subordinates under the Uniform Code of Military Justice (UCMJ). The exercise of direct military authority and the maintenance of morale and discipline in the armed services is a function of the military leader (regardless of grade) acting on behalf of the military commander or on his own recognition. Civilian supervision of military personnel does not include command or direct military authority. These are not functions of DA civilians. However, supervision of military personnel does not, in and of itself, justify nor require a military supervisor.

AUTHORITY AND DISCIPLINE SUBFACTORS

- Exercise direct 24-hour independent responsibility for military authority and discipline.
- Maintain military morale through personal leadership.
- Supervise work.

Survey Point Score	GRC Estimated Point Score	Above Survey		Below Survey	
		Score	GRC	Score	GRC
100	120	X	X		
360	60	X			X
137	204	X			X

Figure 2. Score Summary - AUTHORITY AND DISCIPLINE

TABLE 1
RESPONDENT AND SCORE DISTRIBUTION - ACTUAL SCORES

Subfactors	Scores of 120 or Above			Total Scores Below 120
	Scores to 360	Scores to 2400	Total Scores	
<ul style="list-style-type: none"> • <u>Tradition or Custom</u> <ul style="list-style-type: none"> - Provide required military presence or the effectiveness of the position will be <u>materially compromised</u>. - Provide a military presence <u>materially contributing</u> to the effective discharge of tasks, or the maintenance of military esprit. - Supervise or perform work in a military organization. 	28	71	99	5
	31	66	97	7
	19	61	80	24
<ul style="list-style-type: none"> • <u>Authority and Discipline</u> <ul style="list-style-type: none"> - Exercise direct 24-hour independent responsibility for military authority and discipline. - Maintain military morale through personal leadership. - Supervise work. 	13	87	100	4
	37	49	86	17
	27	30	57	48

TABLE 2
RESPONDENT AND SCORE DISTRIBUTION - PERCENTAGE ARRAY

Subfactors	Percentage of Respondents Identifying as Military	Percentage of Respondents Identifying as Civilian
● <u>Tradition or Custom</u>		
- Provide required military presence or the effectiveness of the position will be materially compromised.	95.2%	4.8%
- Provide a military presence materially contributing to the effective discharge of tasks, or the maintenance of military esprit.	93.3%	6.7%
- Supervise or perform work in a military organization.	76.9%	23.1%
● <u>Authority and Discipline</u>		
- Exercise direct 24-hour independent responsibility for military authority and discipline.	96.2%	3.8%
- Maintain military morale through personal leadership.	83.5%	16.5%
- Supervise work.	54.3%	45.7%

We can conclude from these results that:

- The order of importance of each subfactor accords with the order of importance in the current Handbook. However, the results achieved by the subfactors are not sufficiently distinguished, one from the other, except in the case of the "Supervise Work" subfactor under the "AUTHORITY AND DISCIPLINE" factor.
- The language used in the definitions of the two factors concerned, and in five of the six subfactors should be revised to provide the desired degree of distinctiveness.

Accordingly, the scores and the definitions currently appearing in the current Handbook for the factors and subfactors concerned should be revised as follows:

TRADITION OR
CUSTOM

All positions in a TDA organization are responsible for the execution of assigned tasks. Some of these positions are traditionally or customarily filled by military personnel, including the following:

- Aide, officer and enlisted.
- Provost marshal.
- Inspector general.
- US Military Academy (USMA) professor and instructor as designated by Superintendent, USMA.
- Secretary of service schools and colleges.
- Command sergeant major.
- First sergeant.
- Band leader.
- Band member.
- Recruiter and military career counselor.
- Drill sergeant.
- Chapel activities specialist.
- Company level supply sergeant and company clerk.
- Honor guard.

Military identification of the positions listed above may contribute essential "esprit" to military organizations, or military identification may be a visible aspect of the position essential to the execution of the job. Other positions in the organization, though just as responsible for the execution of assigned tasks, are not materially affected by Army custom or tradition.

TRADITION OR CUSTOM SUBFACTORS

SCORE

- Provide a military presence materially contributing to the effective discharge of tasks, or the maintenance of military esprit. 300
- Provide required military presence or the effectiveness of the position may be compromised. 60
- Execute tasks in an organization. 24

AUTHORITY AND DISCIPLINE

There are both military and civilian supervisory positions in TDA organizations. Some of these supervisory positions require the exercise of direct military authority over military subordinates under the Uniform Code of Military Justice (UCMJ). The exercise of direct military authority and the maintenance of morale and discipline in the armed services is a function of the military leader (regardless of grade) acting on behalf of the military commander or on his/her own recognizance. However, supervision of military personnel does not, in and of itself, justify or require a military supervisor. A civilian supervisor may perform this function. Civilian supervision of military personnel does not include command or direct military authority since these are not functions of DA civilians.

AUTHORITY AND DISCIPLINE SUBFACTORS

SCORE

- Exercise direct 24-hour independent responsibility for military authority and discipline. 1130
- Maintain military morale through personal leadership. 240
- Supervise work. 24

These revisions have been based upon the following precepts.

- Results summarized in Tables 1 and 2 were essentially universal. That is, they were not due to any apparant distortion introduced by sharply skewed results in any participating MACOM or any distinguishable group of testers. A summary comparison of results for the two factors concerned, by MACOM and by distinguishable groups of testers, is contained in Table 3.
- Results demonstrating the exclusively military nature of given subfactors have been used to sharply increase the score values assigned to those subfactors. Objective judgment has been applied in making those increases, using effective test score results as a base.
- Results demonstrating the "leading" tendency of language contained in the factors/subfactors concerned, have been used to revise that language. Objective judgment has been applied in making those revisions.

TABLE 3

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TABLE 3 (Cont.)
RESPONDENT AND SCORE ANALYSIS BY MACOM

THERM SCORE	TEST SUBFACTOR 30			SUBFACTOR 31			TEST SUBFACTOR 29		
	MMW	DRUGM	TRADAC FORSSOM	MMW	DRUGM	TRADAC FORSSOM	MMW	DRUGM	TRADAC FORSSOM
240	1	2	0	0	0	0	0	0	0
1920	0	1	0	0	0	0	0	0	0
1440	2	4	1	0	1	0	0	0	0
960	2	2	3	0	2	0	0	0	0
480	0	4	1	0	0	0	1	0	0
480	0	1	0	1	1	0	0	0	0
1440	0	0	0	0	0	1	0	0	0
360	0	2	0	0	1	0	0	0	0
312	1	2	6	0	0	0	0	0	0
264	0	1	1	1	1	1	0	1	0
240	0	0	1	0	0	0	0	2	0
216	0	0	0	0	0	0	0	0	0
192	1	0	1	0	0	0	0	0	0
168	0	1	1	0	1	0	0	0	0
144	0	2	1	0	1	1	0	0	0
120	0	0	0	0	1	0	0	0	0
112	0	0	0	1	1	0	0	1	1
103	2	2	2	0	2	2	0	1	0
96	0	0	2	0	2	1	0	0	0
72	0	0	0	2	1	0	0	0	0
64	0	1	0	0	2	0	1	0	1
54	0	4	0	1	3	4	1	2	0
30	1	1	1	0	4	2	1	1	1
24	0	1	3	1	2	1	1	1	2
18	0	1	2	0	3	3	1	4	4
12	0	0	1	1	0	2	0	1	1
6	0	1	1	0	2	4	3	3	6
0	0	0	2	1	0	4	3	13	5
N	11	36	32	11	35	32	11	35	32
Σ	1.05	1.88	3.69	4.49	3.43	6.73	11.22	11.6	11.77
ΣX	1.20	2.97	5.62	6.06	3.75	7.34	7.97	7.75	8.04
MEAN	.63	.75	1.00	2.2	2.6	2.8	16.0	12.0	14.0
MEAN	76	90	120	264	312	336	1346	1392	1412
MEAN			180			760			1460

MEAN

ENCLOSURE 2

PART 2

RECOMMENDED CHANGES IN TABLE 3-2, POINT SCORE
IDENTIFICATION OF MILITARY AND CIVILIAN POSITIONS

SECURITY

TDA positions dedicated to physical security and tasks which, if delayed or not performed, could effectively cause immediate and direct impairment of combat capability. The primary tasks of these positions are the following:

- Provide physical security and law enforcement at installations primarily oriented toward troop activities.
- Provide physical security and law enforcement at selected activities to prevent loss or destruction of government property essential to military readiness and the national security.

SECURITY SUBFACTORS

- Secure nuclear weapons and command posts.
- Supervise prisoners.
- Perform police patrol and police desk operations.
- Prevent/investigate crime; cooperate/coordinate with civil police authorities.
- Control/issue ID documentation; perform physical security planning and inspection.
- Control traffic; investigate traffic accidents.

Survey Point Score	Estimated Point Score	Above 120		Below 120	
		Survey	GRC	Survey	GRC
104	300	X	X		
137	240	X	X		
90	200			X	X
76	171			X	X
40	40				X
30	12			X	X

Subfactor	Ratio	50	50
SECURE	720	700	
SECURE	90	190	
PERFORM	60	150	
INVEST	50	120	
CONTROL	20	40	
CONTROL	20	20	

NARRATIVE

The MACOM Narrative comments concerning factor and subfactor completeness and relative importance included indications that the GRC point scores for "Security" are too high. The results of the survey support this contention, four of the 6 subfactors as shown above. The survey score of 1096 appears to be exceedingly high. Application of the 50-50 procedure produced the scores recommended with no change in rank ordering.

SECURITY		CONTROL TRAFFIC INVESTIGATE TRAFFIC ACCIDENTS		CONTROL/ISSUE ID DOCUMENTATION CONTROL/ISSUE ID DOCUMENTATION SECURITY PLANNING INSPECTION		PREVENT/INVESTIGATE CRIME COOPERATE/COORDINATE WITH CIVIL POLICE AUTHORITIES		PERFORM POLICE PATROL AND POLICE DESK OPERATIONS		SUPERVISE PRISONERS		SECURE NUCLEAR WEAPONS AND COMMAND POSTS	
		20X	%=	40X	%=	120X	%=	150X	%=	190X	%=	700X	%=

INTELLIGENCE

IDA positions dedicated to intelligence tasks which, if not performed, could effectively cause immediate and direct impairment of combat capability. Examples of these are the following:

- Positions assigned to the selection and prioritization of requirements and allocation of resources.
- Positions assigned to correlate, analyze and direct collection programs.
- Positions required to develop focused intelligence summaries, devise techniques, perform intelligence tasks, and control the dissemination of intelligence information.

INTELLIGENCE SUBFACTORS

- Select and prioritize requirements; allocate resources.
- Correlate and analyze.
- Direct operational program.
- Devise techniques; perform tasks.
- Prepare focused summaries.
- Control dissemination.

Survey Point Score	GRC Estimated Point Score	Above 20		Below 20	
		Survey	GRC	Survey	GRC
120	400	X	X		
76	300		X	X	
172	240	X	X		
108	200		X	X	
171	171		X	X	
90	120		X	X	

Subfactor	Ratio	50 - 50
DIRECT	310	130
SELECT	280	120
DEVISE	250	110
PREPARE	210	90
CONTROL	210	90
CORRELATE	180	80

NARRATIVE

The MACOM Narrative comments concerning factor and subfactor completeness and relative importance included indications that the GRC point scores for "Intelligence" are too high. The results of the survey support this contention in all 6 subfactors, and reflect a change in rank order. Application of the 50-50 procedure produced revised point scores and rank ordering shown above, right, and recommended below for changes to the Handbook.

INTELLIGENCE	CORRELATE/ANALYZE	CONTROL/Dissemination	PREPARE Focused Summaries	DEVISE TECHNIQUES/Perform Tasks	SELECT/Prioritize Requirements/Allocate Resources	DIRECT OPERATIONAL Programs
	80X %	90X %	90X %	110X %	120X %	130X %

CURRENT MILITARY BACKGROUND AND TRAINING REQUIRED

Examples are:

- Positions assigned to direct planning; management; military systems maintenance, test, or evaluation; and weapons development. Also, other comparable indirect combat support activities in which sub-inductive and recent military experience is necessary to insure that programs are directed toward essential military requirements.
- Positions for personnel assigned as trainers conducting essential military training based on their own military training, practical military experience, and current military doctrine.
- Positions that require training in explosive ordnance disposal, special weapons controller, and Special Forces aidman. Also other comparable combat support and combat service support-type functions, training for which is not normally available to or appropriate for civilian personnel.

CURRENT MILITARY BACKGROUND AND TRAINING REQUIRED SUBFACTORS

- Define military requirements.
- Evaluate doctrine and tactics.
- Determine operational suitability.
- Test operational capability.
- Tactical training of troops in the field.
- Classroom and technical training

Survey Point Score	Estimated Point Score	Above 120	Below 120
456	200	X	
467	240	X	
466	171	X	
460	150	X	
1466	133	X	
12	120	X	

Subfactor	Ratio	50 - 50
TACTICAL	490	800
DEFINE	150	380
EVALUATE	140	320
DETERMINE	150	300
TEST	120	260
CLASSROOM	100	60

NARRATIVE

The extremely high survey point score for the subfactor "Train Troops" (1463) and the comparatively low survey point score for "Teach Doctrine and Tactics" caused a separate analysis of the 2 subfactors in terms of possible interpretation or misinterpretation. Results of this analysis are changes in title of the two subfactors to "Tactical Training of Troops in the Field" (for Train Troops) and "Classroom and Technical Training" (for Teach Doctrine and Tactics). Application of the 50-50 procedure produced the revised scores and rank order shown above, right, and recommended for change to the Handbook as shown below.

CURRENT MILITARY BACKGROUND/TRAINING REQUIRED	CLASSROOM AND TECHNICAL TRAINING	TEST OPERATIONAL CAPABILITY	DETERMINE DOCTRINE AND SUITABILITY	EVALUATE DOCTRINE AND TACTICS	DEFINE MILITARY REQUIREMENTS	TACTICAL TRAINING OF TROOPS IN THE FIELD
60X	%=	260X	%=	300X	%=	800X
						%=

MORALE, WELFARE, AND RECREATION (MWR) ACTIVITIES

Time full-time operating and managerial positions in MWR activities will normally be staffed with civilians. Such activities may be supported from either appropriated or nonappropriated funds. Military incumbency of full-time MWR positions will be authorized only in the specific circumstances prescribed below:

- When military leadership/supervision is essential. Note, however, that such supervision may be a function of a military position at a higher level. Or, it may be a function of a designated position elsewhere in the organization of which the MWR activity is a part. Note, further, that military personnel may be assigned on an additional duty basis to serve as supervisor over or custodian of revenue producing MWR activities (except in primary duty full-time club management positions).
- As specified by HQDA for centrally managed force structure programs. See paragraph 2-7.

MORALE, WELFARE, AND RECREATION (MWR) ACTIVITIES SUBFACTORS

- Provide required military leadership/supervision or the effectiveness of an MWR activity will be materially compromised.
- Provide military leadership/supervision materially contributing to the maintenance of military morale and welfare.
- Supervise or perform work in an MWR activity.

Survey Point Score	GRC Estimated Point Score	Above /20 Survey GRC	Below /20 Survey GRC
127	127	X	X
128	128	X	X
129	129	X	X

Subfactor	Ratio	50	50
PROVIDE-REQ	50	100	
PROVIDE-MIL	40	80	
SUPERVISE	10	20	

NARRATIVE

The survey respondents agreed with the GRC rank order of subfactors, but suggested these scores be adjusted to more explicitly delineate military positions. Application of the 50-50 procedure produced scores shown above, right, and recommended below for inclusion in the Handbook.

MORALE, WELFARE AND RECREATION (MWR) ACTIVITIES	20X % =	80X % =	100X % =

CIVILIAN/ MILITARY MIX REQUIRED

Civilian employees share fully in maintaining the security of our country. The stability of their assignments can, in turn, stabilize the positions they occupy. This stability can provide essential corporate memory in the position and in the organization to which assigned. Use of civilian employees can assure continuity of administration and operation. It can provide a nucleus of trained civilian personnel for expansion in any emergency. Civilian employees shall, therefore, be utilized in all in-service positions which do not require military incumbents for reasons specified by factors and subfactors identified and described in this Handbook. Exceptions to civilian incumbency must be held to a minimum; they must be based upon compelling objective justification which clearly supports a military position identification decision. These may include positions designated for military incumbency because:

- They are utilized in or subject to deployment in a direct military combat support role.
- They are essential to military training/retraining on-the-job in exclusively military skills.

This Handbook allows for a mixed civilian/military workforce for positions performing similar work by:

- Allowing exceptions to civilian incumbency based upon compelling objective justification supporting military incumbency in the two cases described above.
- Allowing military incumbency based upon other factors/subfactors identified and described in this Handbook. A military position identification decision in such cases must be based upon those other factors/subfactors using the method prescribed in Chapter 3.

CIVILIAN/MILITARY MIX REQUIRED SUBFACTORS

- Subject to deployment in a direct military combat support role.
- Receive training/retraining on-the-job in exclusively military skills.
- Provide continuity of administration and operation through stability of assignment.
- Provide services and/or expertise in a position which does not require military incumbents for specific reasons.

Survey Point Score	Estimated Point Score	Above / 20	Below / 20
100	1200	X	
200	2000	X	
300	20		X
400	10		X
500			
600			
700			
800			
900			
1000			

Subfactor	Ratio	50	50
SUBJECT	1100	1130	
RECEIVE	380	330	
PROVIDE-C	30	20	
PROVIDE-S	20	10	

NARRATIVE

The survey respondents agreed with the rank order of the subfactors. Minor differences in point scores were resolved by application of the 50-50 procedure which produced the scores shown above, right, and recommended for inclusion in the Handbook as shown below.

CIVILIAN/ MILITARY MIX REQUIRED	PROVIDE SERVICES AND/OR TRAINING/RETRAINING ON-THE-JOB IN EXCLUSIVELY MILITARY SKILLS	PROVIDE CONTINUITY OF ADMINISTRATION AND OPERATION THROUGH STABILITY OF ASSIGNMENT	RECEIVE TRAINING/RETRAINING ON-THE-JOB IN EXCLUSIVELY MILITARY SKILLS	SUBJECT TO DEPLOYMENT IN A DIRECT MILITARY COMBAT SUPPORT ROLE
	10X %	20X %	330X %	1130X %

AUTHORITY AND DISCIPLINE

IDA positions which require the incumbent to exercise direct military authority over military subordinates under the Uniform Code of Military Justice (UCMJ). The exercise of direct military authority and the maintenance of morale and discipline in the armed services is a function of the military leader (regardless of grade) acting on behalf of the military commander or on his own recognition. Civilian supervision of military personnel does not include command or direct military authority. These are not functions of DA civilians. However, supervision of military personnel does not, in and of itself, justify nor require a military supervisor.

AUTHORITY AND DISCIPLINE SUBFACTORS

- Exercise direct 24-hour independent responsibility for military authority and discipline.
- Maintain military morale through personal leadership.
- Supervise work.

Survey Point Score	Estimated Point Score	Above /20 Survey	Below /20 Survey
1411	120	X	
3641	6.0	X	X
137	24	X	X

NARRATIVE

SEE SEPARATE ANALYSIS IN PART I

AUTHORITY AND DISCIPLINE	SUPERVISE WORK % =	MAINTAIN MILITARY MORALE THROUGH PERSONAL LEADERSHIP % =	EXERCISE DIRECT 24-HOUR INDEPENDENT RESPONSIBILITY FOR MILITARY AUTHORITY AND DISCIPLINE % =
	24X	240X	1130X

TMA positions which, by tradition or custom, have been filled by military personnel. Military identification of these positions may contribute essential "esprit" to military organizations. Or it may be a visible aspect of the position essential to the execution of the job. While other factors or subfactors listed in this Handbook may also apply to the following positions, these are examples of jobs which by tradition or custom are designated for military incumbency:

- Aide, officer and enlisted.
- Provost marshal.
- Inspector General.
- US Military Academy (USMA) professor and instructor as designated by Superintendent, USMA.
- Secretary of service schools and colleges.
- Command sergeant major.
- First sergeant.
- Band leader.
- Band member.
- Recruiter and military career counselor.
- Drill sergeant.
- Chapel activities specialist.
- Company level supply sergeant and company clerk.
- Motor guard.

- Provide required military presence or the effectiveness of the position will be materially compromised.
- Provide a military presence materially contributing to the effective discharge of tasks, or the maintenance of military esprit.
- Supervise or perform work in a military organization

- Recruiter and military career counselor.

Survey Point Score		Estimated Point Score		GNC	
480		120		Above 120	Below 120
456		60		Survey	GNC
408		24			

TRADITION AND/OR CUSTOM	ENSURE FARMER IN AN ORGANIZATION	PROVIDE FARMER WITH MILITARY TRAINING FOR THE EFFECTIVE USE OF THE EQUIPMENT MAY BE CONSIDERED	PROVIDE A MILITARY PRESENCE MATERIALLY CONTRIBUTING TO THE EFFECTIVE USE OF THE EQUIPMENT MAY BE CONSIDERED
	24X % =	60X % =	300X % =

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UNUSUAL HOURS OR WORKING CONDITIONS

TDA positions, not otherwise requiring military incumbents, which entail unusual working hours or working conditions not compatible with or normally associated with civilian employment. Military incumbency will be prescribed for these positions if MACOM Director of Civilian Personnel formally confirms that the unusual working hours or working conditions inherent in the position cannot reasonably be made a "condition of employment" in the successful recruitment of prospective civilian incumbents. This authority may be further delegated by MACOM to Installation Civilian Personnel Offices.

UNUSUAL HOURS OR WORKING CONDITIONS SUBFACTORS

- Life or health risk exceeds civil standards.
- Duty tour schedule or length exceeds civil standards for the occupation.
- Frequent relocation.
- Remote location.

GRC		Above		Below	
Survey Point Score	Estimated Point Score	Survey	GRC	Survey	GRC
108	240		X	X	
103	160		X	X	
60	120		X	X	
60	60			X	X

NARRATIVE

Subfactor	Ratio	50 - 50
LIFE	190	174
DUTY	180	130
FREQUENT	110	90
REMOTE	110	60

The survey results are in complete agreement with the GRC rank ordering of the subfactors, however, the point scores indicate the GRC subfactor scores may be too high. MACOM and CIVPERSCEN comments supported this contention. Application of the 50-50 procedure produced scores shown above, right, and are recommended for changes to the Handbook shown below.

UNUSUAL HOURS OR WORKING CONDITIONS	REMOTE LOCATION	FREQUENT RELOCATION	DUTY TOUR SCHEDULE/LENGTH EXCEEDS CIVIL STANDARDS FOR THE OCCUPATION	LIFE/HEALTH RISK EXCEEDS CIVIL STANDARDS
	60X	90X	130X	174X

ENCLOSURE 2

PART 3

RECOMMENDED CHANGES IN TABLE 3-4, POINT SCORE
IDENTIFICATION OF OFFICER AND ENLISTED POSITIONS

DECISION- MAKING AND COMPLEXITY

Identifying the different ways to do a task and selecting the best and fastest method. How difficult and original the decision will be is determined by the complexity of the tasks, steps, processes, or methods available.

DECISIONMAKING AND COMPLEXITY SUBFACTORS

- Decide concepts, theories, programs, content, and character of operations.
- Originate techniques, establish criteria, decide how personnel will be used.
- Direct varied work force, interpret data, plan work, make refinements.
- Decide what needs to be done within established alternatives.
- Select source of information and type of action, or authorize a direction, based on written guidance.
- Follow specific instructions on work quickly mastered.

Survey Point Score	Estimated Point Score	Above 300		Below 300	
		Survey	GRC	Survey	GRC
278	450	X	X		
150	300		X	X	
71	10			X	X
77	50			X	X
27	20			X	X
21	15			X	X

Subfactor	Ratio	50	50
DECIDE-C	420		410
ORIGINATE	170		230
DIRECT	90		90
DECIDE-W	110		80
SELECT	100		50
FOLLOW	60		30

NARRATIVE

Survey results are in general agreement with the GRC rank order of subfactors. Differences above and below the cut-off score were resolved by application of the 50-50 procedure which produced the scores shown above, right, and included as recommended changes to the Handbook below.

DECISION MAKING AND COMPLEXITY	Follow Specific Instructions on Work Quickly Mastered	Select Source of Information and Type of Action, or Authorize a Direction, Based on Written Guidance	Include What Needs to be Done Within Established Alternatives	Interpret Data, Plan Work, Make Refinements	Integrate Techniques, Guidelines, Criteria, Include How Personnel Will be Used	Decide Concepts, Theories, Programs, Content, and Character of Operations
	30	50	80	90	230	410
DECISION MAKING AND COMPLEXITY						

JUDGMENT AND GUIDELINES

The impact of the judgments and decisions the incumbent of the position makes. The kind of decisions and how they affect others. The nature of the directives and policies available, and the amount of individual judgment needed to apply the guidelines.

JUDGMENT AND GUIDELINES SUBFACTORS

- Interpret and apply broadest guidelines and legislation.
- Adapt general, but limited, guidelines and develop improved applications.
- Interpret and apply detailed guidelines; analyze results; recommend changes.
- From established procedures or guidelines, select and apply best approach.
- Apply specific guidelines effectively.
- Follow detailed guidelines; seek guidance for all deviations.

GRC		Above 300		Below 300	
Survey Point Score	Estimated Point Score	Survey GRC	Survey GRC	Survey GRC	Survey GRC
12	450				
21	300				
27	180				
31	10				
36	20				
45	15				

Subfactor	Ratio	50-50
INT-BROAD	270	290
ADAPT	180	190
INT-DETAILED	200	130
FROM	220	100
APPLY	80	30
FOLLOW	100	30

NARRATIVE

Survey results generally agree with the GRC rank ordering. Two differences in point score, above vs. below the cut-off score were resolved by application of the 50-50 procedure which produced scores in agreement with the survey shown above, right, and recommended for change to the Handbook as shown below.

JUDGMENT AND GUIDELINES		30	30	100	130	190	290
Follow established guidelines; seek guidance for all deviations							
Apply Specific Guidelines Effectively							
From Established Procedures/ Guidelines; Select and Apply Best Approach							
Interpret and Apply Detailed Guidelines; Analyze Results; Recommend Changes							
Adapt General, but Limited Guidelines and Develop Improved Applications							
Interpret and Apply Broadest Guidelines and Legislation							

SUPERVISORY CONTROL

The amount and kind of required direct or indirect controls. Controls are exercised in the way assignments are made, instructions are given, priorities and deadlines are set, and objectives and boundaries are defined. Use of these controls in ways that should best achieve unit goals requires coordination and face-to-face contact at the management and supervisory levels outside the immediate activity.

SUPERVISORY CONTROL SUBFACTORS

- Provide direction on broad mission and functions; coordinate with top management.
- Set overall objectives; establish resource levels; consult other managers.
- Make assignments; define objectives and priorities.
- Assure technical accuracy of work performed.
- Plan and carry out work in accordance with accepted practice.
- Work as instructed and consult supervisor as needed.

Survey Point Score	GRC Estimated Point Score	Above 500 Survey GRC	Below 500 Survey GRC
270	450	X	X
370	300	X	X
61	90	X	X
7	60	X	X
71	20	X	X
33	20	X	X

NARRATIVE

Subfactor	Ratio	50 - 50
PLANNING	330	360
SET	370	300
MAKE	80	80
ASSURE	70	60
PLAN	50	30
WORK	70	30

Survey results reveal agreement with the GRC rank ordering of subfactors, with the exception of a difference in point score for one subfactor. Application of the 50-50 procedure revised point scores to a closer agreement with survey scores without change in rank order as shown below as a recommended change to the Handbook.

SUPERVISORY CONTROL				
Works as instructed and supervised as required	30	30	60	100
Plans and carries out work in accordance with accepted practice	30	30	60	100
Assures technical accuracy of work performed	30	30	60	100
Makes assignments, defines objectives and priorities	30	30	60	100
Set overall objectives; establish resource levels; consult other managers	30	30	60	100
Provides direction on broad mission and functions; coordinate with top management	30	30	60	100

FACTOR

KNOWLEDGE

DEFINITION

The amount and kind of information necessary to the performance of acceptable work and the extent of the skills needed to apply that knowledge. The necessary information may be steps, procedures, practices, rules, policies, theories, principles, or concepts.

KNOWLEDGE SUBFACTORS

- Advanced degree required.
- Mastery of professional field to generate and develop new hypotheses and theories.
- Knowledge of a wide range of concepts, principles, and practices in a professional occupation.
- Knowledge of an extensive body of regulations on a wide variety of functions.
- Knowledge of basic operations which require some previous training.
- Broad knowledge of military operations and subjects.

Survey Point Score	GRC Estimated Point Score	Above Survey GRC	Below Survey GRC
276	710	X	
372	450	X	
270	300		X
87	70		X
47	60		X
99	30		X

NARRATIVE

Survey respondents agreed with the rank ordering of the subfactors, except for "Broad Knowledge of Military Operations and Subjects," which was scored higher by the survey. The GRC analysis team agrees that "Basic Knowledge" should rank below "Broad Knowledge." Application of the 50-50 procedure produced the scores shown above, right, which alters the rank order as included in the below recommended changes to the Handbook.

Subfactor	Ratio	50 - 50
ADVANCED	500	560
MASTERY	500	410
WIDE	370	290
EXTENSIVE	120	70
BROAD	130	70
BASIC	70	50

KNOWLEDGE	Knowledge of Basic Operations and Subjects (50)	Broad Knowledge of Military Operations and Subjects (70)	Knowledge of an Extensive Body of Regulations on a Wide Variety of Functions (90)	Knowledge of a Wide Range of Concepts, Principles, and Practices in a Professional Occupation (50)	Mastery of a Professional Field to Generate and Develop New Hypotheses and Theories (50)	Advanced Degree Required (560)
	50	70	90	50	560	560

ENCLOSURE 2

PART 4

RECOMMENDED CHANGES IN TABLE 3-5, POINT SCORE
IDENTIFICATION OF COMMISSIONED OFFICER AND WARRANT OFFICER POSITIONS

PROBLEM SOLVING

How much know-how is required to recognize, define, and resolve a problem. The amount of original, self-starting thinking required to analyze, evaluate, create, reason, and draw conclusions.

PROBLEM SOLVING SUBFACTORS

- Interpret policy and doctrine.
- Set mission goals and evaluate progress.
- Solve technical operating problems.
- Perform technical management functions.
- Direct personnel using proven methods.

Survey Point Score	GRC Estimated Point Score	Above 360		Below 360	
		Survey	GRC	Survey	GRC
324	180			X	X
418	140	X			X
50	70			X	X
50	10			X	X
74	40			X	X

NARRATIVE

Subfactor	Ratio	50	50
SET	230	280	
INTERPRET	180	250	
PERFORM	30	70	
DIRECT	40	70	
SOLVE	30	60	

The survey results indicate the need for a change in rank ordering of subfactors. Survey point scores are higher than GRC scores on 3 subfactors, and lower on 2. Application of the 50-50 procedure produced scores which agree with the survey difference in cut-off for "Set Mission Goals and Evaluate Progress" and are included in the below recommended change to the Handbook.

PROBLEM SOLVING	Solve Technical Operating Problems	Direct Personnel Using Proven Methods	Perform Technical Management Functions	Interpret Policy and Doctrine	Set Mission Goals and Evaluate Progress
	60	70	70	250	280

FACTOR

KNOW-HOW

DEFINITION

The total amount of every kind of skill, however it was learned, that is needed for acceptable job performance. The accumulated amount of knowledge, managerial understanding, and human relations skills required to do the job.

KNOW-HOW SUBFACTORS

- Staff or line planning/programming/management/organization responsibilities.
- Responsibility for military operations and force management.
- In-depth expertise in several enlisted technical skills.
- Employ special technical skills; operate complex equipment.
- Supervise technical service activity.

Survey Point Score	GRC Estimated Point Score	Above 30		Below 30	
		Survey	GRC	Survey	GRC
264	120	X			X
454	160	X			X
477	160			X	X
511	170			X	X
530	170			X	X

NARRATIVE

Subfactor	Ratio	50	50
RESPONSIBILITY	250	310	
STAFF	260	270	
IN-DEPTH	30	70	
EMPLOY	30	60	
SUPERVISE	30	40	

The survey results contain a disagreement in rank ordering and point scores. The respondents indicated 2 GRC scores are too low and 3 are too high. Analysis of these results caused the GRC team to change the rank order of subfactors. Application of the 50-50 procedure produced the revised scores shown above, right, and included in the below recommended change to the Handbook.

(a)	KNOW-HOW	Subfactor					Total
		Supervise Technical Service Activity	Employ Special Technical Skills; Operate Complex Equipment	In depth Expertise In Several Enlisted Skills	Staff or Line Planning/Programming/Management/ Organization Responsibilities	Responsibility for Military Operations and Force Management	
		40	60	70	270	310	310

ACCOUNTABILITY*

Answer for actions and take the consequences of the action. The impact of the job on end results with respect to the responsibility of the position.

ACCOUNTABILITY SUBFACTORS

- Control substantial resources.
- Develop functional policies and advise on implementation.
- Responsible for administrative and support services.
- Receipt and account for property.

Survey Point Score	CRG Estimated Point Score	Above 360	Below 360
100	180		X
100	120		X
40	90		X
	40		X

Subfactor	Ratio	50 - 50
CONTROL	170	170
DEVELOP	170	140
RESPONSIBLE	90	70
RECEIPT	40	40

NARRATIVE

Complete agreement on rank order and no significant difference in point score. Application of the 50-50 procedure produced the revised scores in the recommended change to the Handbook shown below.

ACCOUNTABILITY	Receipt and Account for Property	Responsible for Administrative and Support Services	Develop Functional Policies and Advise on Implementation	Control Substantial Resources
	40	70	140	170

ENCLOSURE 3

ANALYSIS OF SURVEY RESULTS

ANALYSIS OF SURVEY RESULTS

OUTCOMES BY PRINCIPAL RESPONDENT GROUPINGS

Of the planned 125 surveys, 121 were completed due to absence of four scheduled respondents. Table 1 summarizes survey reject results by category of respondent. Table 2 summarizes survey reject results by MACOM. Table 3 summarizes survey reject results by respondents who read/did not read the Handbook before completing the survey.

Two significant findings are reached based upon the survey reject analyses.

- FORSCOM reject rate was significantly higher than any other MACOM, as well as the aggregate reject rate.
- Enlisted respondent reject rate was significantly higher than any other personnel category, as well as the aggregate reject rate.

The survey was administered on site by an HQDA/GRC team at all locations except FORSCOM, Fort McPherson, Georgia. A primary purpose of the on-site administration scheme was to assure the presence of knowledgeable administrators who could communicate accurately and effectively with survey respondents regarding survey objectives, content, and completion. The absence of knowledgeable administrators in taking the FORSCOM sample had predictable results. Note, particularly, that the bulk of enlisted rejects also occurs in the FORSCOM sample.

Our conclusions based on these analyses of the results displayed in Tables 1, 2, and 3 are:

- Neither the FORSCOM nor the enlisted reject rates should be a basis for disqualifying or downgrading the weight accorded to the balance (i.e., Category I valid surveys) of the FORSCOM and enlisted segments of the survey sample. The FORSCOM and enlisted reject rates are attributed to the

TABLE 1
SURVEY REJECTION RESULTS BY CATEGORY OF RESPONDENT

Category of Respondent	Total Surveys	Valid Surveys	Rejected Surveys	Rejection Rate
Officer	10	9	1	10%
Enlisted	15	8	7	47%
Civilian (GS-11 and above)	66	61	5	8%
Civilian (GS-9 and below)	29	27	2	7%
Unknown (omitted by respondent)	1	-	1	100%
Aggregate	121	105	16	13%

TABLE 2
SURVEY REJECTION RESULTS BY MACOM

MACOM	Total Surveys	Valid Surveys	Rejected Surveys			Rejection Rate
			Category II	Category III	Total	
<u>MDW</u>						
Officer	2	2	0	0	0	-
Enlisted	0	0	0	0	0	-
GS-11 and above	10	8	2	0	2	20%
GS-9 and below	<u>2</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	50%
Aggregate	14	11	3	0	3	21%
<u>DARCOM</u>						
Officer	1	1	0	0	0	-
Enlisted	0	0	0	0	0	-
GS-11 and above	28	27	1	0	1	4%
GS-9 and below	<u>8</u>	<u>8</u>	<u>0</u>	<u>0</u>	<u>0</u>	-
Aggregate	37	36	1	0	1	3%
<u>TRADOC</u>						
Officer	5	5	0	0	0	-
Enlisted	5	3	1	1	2	40%
GS-11 and above	14	14	0	0	0	-
GS-9 and below	<u>11</u>	<u>10</u>	<u>1</u>	<u>0</u>	<u>1</u>	9%
Aggregate	35	32	2	1	3	9%
<u>FORSCOM</u>						
Officer	2	1	0	1	1	50%
Enlisted	10	5	3	2	5	50%
GS-11 and above	14	12	1	1	2	14%
GS-9 and below	8	8	0	0	0	-
Unknown	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	100%
Aggregate	<u>35</u>	<u>26</u>	<u>4</u>	<u>5</u>	<u>9</u>	26%
Cumulative	121	105	10	6	16	13%

TABLE 3
SURVEY REJECTION RESULTS BY RESPONDENTS WHO
READ/DID-NOT-READ THE HANDBOOK

Respondents Who:	Total Surveys	Valid Surveys	Rejected Surveys	Rejection Rate
Read Handbook	16	14	2	13%
Did Not Read Handbook	<u>105</u>	<u>91</u>	<u>14</u>	13%
Aggregate	121	105	16	13%

absence of qualified survey administrators on site at FORSCOM. Their absence left the mechanics of a relatively complex survey to the random individual perceptions of the FORSCOM respondents. Those respondents who properly construed the written survey instructions completed the survey in the prescribed fashion. Those who improperly construed the written survey instructions were concurrently denied the assistance of qualified survey administrators, resulting in misperceptions of survey mechanics and failure to complete the survey in the prescribed fashion.

- To the extent that the absence of qualified survey administrators at FORSCOM may have adversely affected the quality of FORSCOM survey responses which have been included in overall results, the probable impact is minimized. The number of FORSCOM rejects reduced the proportion of the FORSCOM sample within the aggregate sample from a programmed level of 30% ($35 \div 121$) to an actual level of 24% ($26 \div 105$).
- The analyses by MACOM (other than FORSCOM), by manpower category (other than FORSCOM enlisted), and by respondents who read/did-not-read the Handbook, demonstrate essentially consistent rates indicating desired levels of:
 - Respondent comprehension and understanding
 - Relative simplicity and comprehensibility of Handbook content comprising the survey instrument.

ANALYSIS OF DIFFERENCES BETWEEN SUBGROUPS

The 105 valid surveys (Category I) used in the final analysis of subfactor scores were distributed by identifiable subgroup and analyzed to determine if any subgroup unduly influenced the survey scores by subfactor. Four subfactors were analyzed to determine whether FORSCOM differed substantially from the other commands and whether military respondents differed substantially from civilian participants. The number of respondents scoring above and below the population median

was computed in each case. Table 4 illustrates the results for the four subfactors.

A chi-square test was applied to the number of subgroup respondents falling above and below the median to identify whether any subgroups were significantly different from the overall population. The only statistically significant difference (at the 5% confidence level) was found for subfactor 18 between FORSCOM and other commands. The subfactor median point score for FORSCOM was 76, compared to 120 for the other commands. While this difference may be statistically significant, we did not feel that, standing alone, it warranted a limitation on the use of the FORSCOM Category I survey respondents.

A second analysis of responses by identifiable subgroup was conducted for the six additional subfactors associated with the factors: TRADITION OR CUSTOM; and AUTHORITY AND DISCIPLINE. That analysis is addressed in Enclosure 2, Part 1, appended to the covering memorandum transmitting this documentation of our review of survey results. While the two factors just identified, and their respective subfactors, have been substantively modified as a result of the analysis in Enclosure 2, Part 1, we determined in the course of the cited analysis that the results relating to those factors and subfactors were not measurably influenced by any apparent distortion introduced by sharply skewed results in identified subgroups.

STATISTICAL ANALYSIS OF ABERRANT RESPONSES

An analysis of aberrant responses was performed for specific subfactors to determine if:

- Large numbers of aberrant responses were being produced by any one command.
- Aberrant responses by any particular command were altering the survey scores substantially.

TABLE 4
SUBFACTOR SCORE DISTORTION ANALYSIS

	Subfactor 16			Subfactor 17			Subfactor 18			Subfactor 19		
	<u>FORSCOM</u>	<u>Other</u> <u>MACOMs</u>		<u>FORSCOM</u>	<u>Other</u> <u>MACOMs</u>		<u>FORSCOM</u>	<u>Other</u> <u>MACOMs</u>		<u>FORSCOM</u>	<u>Other</u> <u>MACOMs</u>	
Below Median	15.0	36.5		16.0	37.5		19.0	33.0		9.5	43.0	
Above Median	11.0	40.5		10.0	40.5		7.0	45.0		16.5	36.0	
	<u>Military</u>	<u>Civilian</u>		<u>Military</u>	<u>Civilian</u>		<u>Military</u>	<u>Civilian</u>		<u>Military</u>	<u>Civilian</u>	
Below Median	9.5	42.0		8.0	44.5		12.0	40.0		10.0	42.5	
Above Median	7.5	44.0		9.0	43.5		5.0	47.0		7.0	45.5	

Survey subfactors 13, 24, and 30 were analyzed on the militariness scale, since these subfactors appeared to contain considerable variation in scores. These three subfactors had responses distributed relatively evenly over the entire militariness scale. Therefore, survey responses containing the upper and lower 10% of the respondents in each subfactor were analyzed by MACOM. These responses were:

- For subfactor 13: 24 points or less, and 456 points or more.
- For subfactor 24: 24 points or less, and 480 points or more.
- For subfactor 30: 12 points or less, and 960 points or more.

Out of a total of 312 responses, there were 76, or 22.4%*, aberrant responses in these categories. The results by MACOM are given in Table 5. TRADOC has the greatest percentage of respondents in the extreme ranges of the survey, with 32.3% of the command's responses in the aberrant range. The other commands contained below average percentages of aberrant responses.

A second analysis was performed to determine if the aberrant responses from any MACOM were likely to affect the median point scores. Table 6 gives the number of aberrant responses broken out by high and low aberrant scores. FORSCOM, while having a greater proportion of aberrant scores than the other commands, was almost equally divided between high and low aberrant responses. Therefore, FORSCOM, while exhibiting more total variability than the other commands, would not have affected the median score. None of the commands contained significantly different numbers of aberrantly low or high responses to affect the median score.

STATISTICAL ANALYSIS PROCEDURES

Survey results were compiled and analyzed in consonance with the analysis plan appended as Enclosure 1 to the memorandum transmitting

*The upper 10% and lower 10% were defined by scale values that included somewhat more than 10% of the respondents in each case.

TABLE 5
ABERRANT RESPONSES BY MACOM FOR MILITARINESS
SUBFACTORS 13, 24, AND 30

MACOM	Aberrant Responses	Total Responses	Percent Aberrant
MDW	7	33	21.2
DARCOM	24	108	22.2
TRADOC	30	93	32.3
FORSCOM	<u>9</u>	<u>78</u>	11.5
Total	70	312	22.4

TABLE 6
HIGH AND LOW ABERRANT RESPONSES BY MACOM

MACOM	Aberrantly Low Responses	Aberrantly High Responses
MDW	5	2
DARCOM	16	8
TRADOC	16	14
FORSCOM	<u>2</u>	<u>7</u>
Total	39	31

this document. Codebook responses were converted to score values on the "militariness," "officership," and "commissioned" scales, as indicated in Figures 5, 6, and 7 of that analysis plan. Computations appear in Table 7. "Militariness," "officership," and "commissioned" scores were converted to point values by assigning: X = 120 points; Y = 300 points; Z = 360 points.

Both medians and means were computed for all subfactors. The analysis plan describes the criteria for selecting the median or mean as the measure of central tendency. Basically, the median was selected where the survey responses were not normally distributed. Since the three survey scales allow for a wide range of responses, the data were frequently skewed and the median statistic was used. (The median was virtually always less than the mean.) Confidence limits were computed for subfactors according to the statistical procedures described on page 16 of the analysis plan.

Table 8 is a comparison of point values between the GRC average and the survey-generated average. In computing the correlation coefficient for the "militariness" scale, the eight subfactors that were redefined (see Enclosure 2, Part 1, appended to the memorandum transmitting this document) were excluded. While the correlation coefficient appearing in Table 7 for the militariness scale is lowest, it is nevertheless significant.

TABLE 8
COMPARISON OF POINT VALUES

Scale	GRC Average	Survey Average	Correlation Coefficient
Militariness	202	216	.704
Officership	192	139	.847
Commissioned	106	166	.775

TABLE 7
SURVEY ANALYSIS SUMMARY

Questionnaire Subfactor	(M): Median (A): Arithmetic Average X Score	95% Confidence Range		Survey Point Score	CRC Estimated Point Score
		Lower Limit	Upper Limit		
1. Determine operational suitability	3.80 (H)	3.40	8.00	456	171
2. Define military requirements	3.80 (H)	3.20	4.00	456	300
3. Evaluate doctrine and tactics	3.40 (H)	2.80	3.80	408	240
4. Teach doctrine and tactics	2.60 (H)	2.00	3.80	312	120
5. Test operational capability	3.00 (H)	2.00	3.80	360	150
6. Train troops	12.19 (A)	10.71	13.67	1,664	444
7. Secure nuclear weapons and command posts	9.13 (A)	7.59	10.67	1,096	300
8. Supervise prisoners	1.14 (H)	0.86	1.70	137	250
9. Perform police patrol and police desk operations	0.75 (H)	0.63	1.07	90	200
10. Prevent/investigate crime; cooperate, coordinate with civilian police authorities	0.63 (H)	0.50	0.75	76	171
11. Control/issue doc.; perform physical security planning and inspection	0.25 (H)	0.20	0.44	30	40
12. Control traffic; investigate traffic accidents	0.25 (H)	0.20	0.33	30	12
13. Provide required leadership or MMR will be materially compromised	1.14 (H)	0.86	1.40	137	60
14. Supervise or perform work	0.20 (H)	0.20	0.70	24	6
15. Provide leadership contributing to MMR maintenance	1.07 (H)	0.86	1.40	128	30
16. Duty tour length or schedule exceeds civilian standards for the occupation	0.86 (H)	0.63	1.00	103	160
17. Remote location	0.50 (H)	0.30	0.75	60	60
18. Life or health risk exceeds civilian standards	0.90 (H)	0.75	1.00	108	250
19. Frequent relocation	0.50 (H)	0.50	0.75	60	150
20. Intelligence. Devise techniques; perform tasks	0.90 (H)	0.75	1.07	108	200
21. Select and prioritize requirements; allocate resources	1.00 (H)	0.75	1.17	120	400
22. Control dissemination	0.75 (H)	0.50	1.13	90	150
23. Correlate and analyze	0.63 (H)	0.50	0.86	76	300
24. Direct operational program	1.30 (H)	0.93	1.60	137	250
25. Prepare focused summaries	0.75 (H)	0.63	0.93	90	171
26. Supervise/perform work in a military organization	1.50 (H)	1.00	9.00	508	24

TABLE 7 (Continued)

Questionnaire Subfactor	(M): Median (A): Arithmetic X Score	95% Confidence Range		Survey Point Score	CRC Estimated Point Score
		Lower Limit	Upper Limit		
27. Provide a military presence materially contributing	3.80 (H)	3.40	4.00	456	60
28. Provide required military presence or effectiveness will be materially compromised	4.00 (H)	3.80	8.00	480	120
29. Exercise direct 24-hour responsibility for authority and discipline	11.76 (A)	10.36	13.16	1,411	170
30. Supervise work	1.14 (H)	0.63	1.80	137	24
31. Maintain military morale	3.00 (H)	2.10	3.80	800	60
32. Subject to deployment in a combat support role	8.78 (A)	7.36	10.20	1,054	1,200
33. Receive training in exclusively military skills	3.00 (H)	1.80	3.60	660	100
34. Provide continuity of operation	0.20 (H)	0.20	0.20	24	70
35. Provide services which do not require military incumbents	0.15 (H)	0.15	0.20	18	10

TABLE 7 (Continued)

"OFFICERSHIP" SUBFACTORS

Questionnaire Subfactor	(M): Median (A): Arithmetic Y Score	95% Confidence Range		Survey Point Score	CR Estimated Point Score
		Lower Limit	Upper Limit		
1. Decision making: decide what needs to be done	.33 (H)	.25	.40	99	60
2. Decide concepts, theories, programs	1.26 (A)	1.09	1.43	378	450
3. Select source of information and type of action	.29 (H)	.22	.40	87	20
4. Follow specific instructions	.17 (A)	.12	.22	31	15
5. Direct varied work force	.27 (H)	.22	.33	81	90
6. Originate techniques	.50 (H)	.31	1.00	150	300
7. Judgment and guidelines: adapt general but limited guidelines	.27 (H)	.22	.29	81	300
8. Follow detailed guidelines	.15 (A)	.09	.21	45	15
9. Apply specific guidelines	.12 (H)	.12	.16	36	20
10. Interpret and apply broadest guidelines	.40 (H)	.29	.83	170	450
11. Interpret and apply detailed guidelines	.29 (H)	.25	.33	87	180
12. From established procedures, select and apply best approach	.33 (A)	.27	.39	99	90
13. Knowledge of basic operations which requires some previous training	.16 (H)	.17	.18	48	60
14. Broad knowledge of military operations	.13 (H)	.29	1.00	99	30
15. Knowledge of wide range of concepts, principles	.90 (A)	.77	1.03	270	300
16. Advanced degree required	1.22 (A)	1.08	1.36	366	750
17. Knowledge of extensive body of regulations	.29 (H)	.22	.40	87	90
18. Mastery of professional field	1.24 (A)	1.08	1.40	372	450
19. Set overall objectives	1.07 (A)	.87	1.17	306	300
20. Assure technical accuracy	.20 (H)	.18	.22	60	60
21. Make assignments	.23 (H)	.21	.31	69	90
22. Work as instructed and consult supervisor	.11 (A)	.09	.13	33	20
23. Plan and carry out work in accordance with accepted practice	.13 (A)	.11	.15	39	20
24. Provide direction on broad mission and functions	.98 (A)	.76	1.03	270	450

TABLE 7 (Continued)

"COMMISSIONED" SUBFACTORS

Questionnaire Subfactor	(M): Median (A): Arithmetic Average Z Score	95% Confidence Range		Survey Point Score	GRC Estimated Point Score
		Lower Limit	Upper Limit		
1. Solve technical operations problems	.14 (M)	.12	.20	50	70
2. Set mission goals and evaluate progress	1.16 (A)	1.00	1.32	418	150
3. Direct personnel using proven methods	.26 (M)	.22	.30	94	50
4. Perform technical management functions	.14 (M)	.12	.22	50	90
5. Interpret policy and doctrine	.90 (A)	.75	1.05	174	180
6. Supervise technical service	.14 (M)	.12	.26	50	30
7. Responsibility for military operations and force management	1.26 (A)	1.11	1.41	454	160
8. Staff or line plan/program/manage/org. responsibility	1.01 (A)	.88	1.14	464	180
9. In-depth expertise in enlisted	.13 (A)	.11	.15	47	100
10. Employ special technical skills	.15 (A)	.11	.18	54	70
11. Receipt and account for property	.12 (M)	.12	.15	43	60
12. Control substantial resources	.46 (M)	.42	.50	166	180
13. Develop functional policies	.46 (M)	.46	.50	166	170
14. Responsible for A&S services	.12 (M)	.12	.20	43	90

Differences between the Handbook and the survey-generated scores, by subfactor, may be further analyzed as displayed in Table 9 based upon the placement of subfactor scores above or below the cut-off point for their respective scales.

While the incidence of disagreement above and below cut-off points (23 out of 73 subfactors) may be acceptable, there is a more or less wide disparity in survey-generated versus Handbook scores by individual subfactor, as illustrated in Table 9. Our first task in responding to these disparities was to devise a method for accommodating the Handbook scores by subfactor to the relative values assigned by survey respondents. Two principal methods are available.

- The first method is a ratio procedure. This procedure is carried out in five steps and involved compilation of all subfactor scores within a factor. The following is an example of the ratio procedure, based upon survey responses for the "KNOWLEDGE" factor on the "officership" scale.

- (1) Total survey point scores for all subfactors within the factor:

366
372
270
87
48
99
Total "A" 1242

- (2) Total Handbook point scores for all subfactors within the factor:

750
450
300
90
60
30
Total "B" 1680

- (3) Divide Total "B" by Total "A"
 $1680/1242 = 1.353$ ratio

TABLE 9
SURVEY SCORES

Handbook Score	Agree	Disagree	Total Subfactors
<u>Militariness</u>			
Below 120	6	6	12
120 or Above	14	9	23
<u>Officership</u>			
Below 300	15	0	15
300 or Above	4	5	9
<u>Commissioned</u>			
Below 360	<u>11</u>	<u>3</u>	<u>14</u>
Aggregate	50	23	73

- (4) Multiply survey point scores for each factor by the desired ratio:

1.353 x 366 = 495
1.353 x 372 = 503
1.353 x 270 = 365
1.353 x 87 = 118
1.353 x 48 = 70
1.353 x 99 = 130

- (5) Round off scores ± 5 :

495
505
365
120
70
130

- The second method may be called a 50-50 procedure. The following is an example of the 50-50 procedure

<u>Factor</u>	<u>Subfactor</u>
"SECURITY"	"Secure nuclear weapons and command posts"
Survey score	1096
Handbook score	<u>300</u>
Total	1396 $\div 2 = 698$
Round off score $\pm 5 =$	700

The 50-50 procedure is preferred over the ratio procedure since it addresses point scores independently by subfactor. The ratio procedure includes scores of all subfactors in a factor which may cause the score of one subfactor within a factor to impact on the score of another. The 50-50 procedure also makes explicit use of both survey respondents and previous GRC/SAG judgments as to reasonable subfactor scores. The procedure considers both sets of judgments as equally important for arriving at a final set of subfactor scores prior to the field test of the Handbook.

Enclosure 2 to the memorandum transmitting this document applies the 50-50 procedure to each subfactor, and includes analyses supporting the revision of selected subfactors.

Final analysis of the impact upon the Army manpower structure of the revised subfactors must await the results of the expanded field test covering a sample of active Army authorized positions.

APPENDIX D

ANALYSIS - EXANDED FIELD TEST

1 June 1981

ANALYSIS

EXPANDED FIELD TEST - DRAFT POSITION IDENTIFICATION HANDBOOK

BACKGROUND

The expanded field test plan developed by General Research Corporation (GRC) and submitted on 15 October 1980¹ was designed to achieve the following objectives:

- Ensure that the numerical values assigned to subfactors in the draft Position Identification Handbook have the capability to discriminate adequately among alternative position identities when applied Army-wide.
- Confirm the validity, relative simplicity, and comprehension level of the definitions, techniques, and methods prescribed in the draft handbook.
- Confirm the probable level of applicability of the method to the Reserve Components and to future Army force structure changes.

In collaboration with the Study Advisory Group (SAG) and the Contracting Officer's Technical Representative (COTR), it was determined that the expanded test should consist of two parts:

- Part I: Confirmation of Point Score Values
- Part II: Expanded Field Test of Selected Positions Using a Properly Qualified and Stratified Group of Testers

PART I OF THE TEST

The elements designed by GRC and approved for use by the SAG and the COTR in completing this field survey portion of the test are incorporated in Appendixes A through D of the expanded field test plan

¹Quantitative Procedure for Position Identity Definition, 1165-02-80-CR, 15 October 1980.

submitted on 15 October 1980. A summary of survey administration details is also included in that document. We addressed certain supplementary survey administration details in Enclosure 1, and a copy of the script used in briefing survey participants is attached as Enclosure 2.

Our analysis of this field survey portion of the test was submitted on 19 November 1980 (see Enclosure 3). It was briefed to the SAG and COTR on 9 December 1980 using the vu-graph slides attached as Enclosure 4.

With the approval of the SAG and COTR, our recommended changes based upon field survey results were incorporated in the Position Identification Handbook (see Enclosure 5). That version of the Handbook was used by the testers in completing Part II of the expanded field test.

PART II OF THE TEST

The procedures developed by GRC and approved for use in completing this on-site position identification portion of the test are detailed in the expanded field test plan submitted on 15 October 1980. The following paragraphs summarize the procedures actually used in conducting the on-site position identification portion of the test.

HQDA (DAPE-MBU) Administration of Position Selection and On-Site Test

Time, funding, and contract resource availability limitations resulted in a decision that all aspects of the position selection, position screening, tester selection, tester mix, tester indoctrination, and on-site administration of the position identification portion of the test would be conducted by DAPE-MBU under the auspices of the COTR. These limitations precluded participation by GRC representatives in these phases of the test, although several telephone contacts were made with them at their McLean, Virginia, headquarters for advisory assistance. Actual conduct of the on-site test proceeded as follows:

- Rather than a three-person on-site test team (one from DAPE-MBU and two from GRC), a single DAPE-MBU commissioned officer representative conducted the on-site test.

- The proposed GRC "lead-man" concept for prescreening of positions selected, other test materials, and test preparations was not used.
- The GRC-proposed job description format, considered a key element of the test, was used by participating MACOMs. A significant number of job descriptions were prepared in long-hand, with some portions difficult to read. Contract resources were not available for use by GRC in conducting a further quality assurance review of job description content.

Accordingly, this analysis does not further address the on-site test parameters and test environment prescribed in GRC's expanded field test plan submitted on 15 October 1980. The following paragraphs describe selected vital statistics pertinent to the on-site test.

Test Location and MACOM Participation

Test site locations, MACOM participation, number of positions by manpower category originally selected by MACOMs, and testers by MACOM by manpower category were as indicated in Table 1.

Tester Credentials

Limited data covering the grade and experience of each tester were made available and is contained in Table 2. It will be noted that:

- All but two of the testers were Federal civilian employees.
- None of the testers were serving in warrant officer or enlisted grades.
- Almost half (16) of the testers had over 10 years of experience in the manpower management function. While one of the remaining testers had no experience at all in the field, over half had 5, or more, years of experience.

TABLE 1
TEST LOCATIONS AND MACOM PARTICIPATION

Location	MACOM	Testers *						Number of Positions *				
		A	B	C	D	E	F	COF	WOF	ENL	CIV	Total
Ft Sill	TRADOC	CIV	CIV	CIV	CIV	CIV	CIV	19	10	12	20	61
Ft Huachuca	ACC	CIV	CIV	CIV	CIV	CIV	CIV	19	10	11	19	59
Aberdeen	DARCOM	CIV	CIV	CIV	CIV	CIV	CIV	24	6	14	22	66
Ft Sam Houston	HSC	CIV	CIV	COF	COF	CIV	CIV	19	10	11	20	60
Ft Bragg	FORSCOM	CIV	CIV	CIV	CIV	CIV	---	19	10	11	20	60
Frankfurt	USAREUR	CIV	CIV	CIV	CIV	CIV	CIV	19	2	19	20	60
Ft Meade	Reserves	CIV	COF	CIV	---	---	---	0	0	0	15	15
Total								119	48	78	136	381

* Notes:

- Testers were not named. Each received an alphabetical designator, by location, as shown.
- Tester and position manpower category designators used in the table are: COF = commissioned officer, WOF = warrant officer, ENL = enlisted, CIV = civilian.

TABLE 2
TESTER CREDENTIALS*

Current Status	Number of Testers	Rank/Grade						Years Manpower Experience					
		0-4	0-3	GS-12	GS-11	GS-9	GS-7	Over 16	10 to 15	5 to 9	1 to 4	None	
Commissioned Officer	2	1	1									2	
Warrant Officer	0												
Enlisted	0												
Civilian	33	-	-	11	15	6	1	5	11	10	6	1	
Total	35	1	1	11	15	6	1	5	11	10	8	1	

* Notes:

- Table includes 35 designated Primary Testers at MACOM/Installations 1 through 6 who participated in the test. Does not include any designated Alternates.
- Table does not include three designated Primary Testers at MACOM/Installation 7 (all positions selected were disqualified and were not included in the test).
- Educational background was made available on three of the 35 testers listed in the Table (1 - Baccalaureate Degree; 2 - High School Graduates).
- Of the 33 Civilian Testers, four indicated on their own volition that they had prior military service, but that question was not formally put to all testers.

PART II TEST ANALYSIS - COMPILATION AND REFINEMENT OF DATA

Test results for each tester on each position he/she evaluated were entered on keypunch cards for possible future use by the Army Research Institute. Keypunch cards were delivered to the COTR on 5 May 1981 under separate cover. Table 3 lists the input record description used. A separate card was prepared for each position evaluated by each tester. It is emphasized that the keypunch cards contain only raw data entered by testers.

For our analyses, the raw data elements were first reviewed, refined, corrected, or disqualified for the reasons and in the manner detailed in Table 4. Voluminous data summaries and related products in computerized format in lieu of manually prepared tables or reports have been prepared using GRC's in-house CROMEMCO micro-computer. These computerized data products consist of all of the on-site position identification test data remaining after the review, modifications, and exclusions in Table 4. All required data summaries and related products were, because of their bulk, hand delivered to the COTR under separate cover on 5 May 1981.

After removing from the data base all data pertaining to positions disqualified for the reasons detailed in Table 4, a set of 359 valid positions remained. The GRC test plan submitted on 15 October 1980 specified that an initial package of 360 test positions before any positions or testers were disqualified would provide a level of redundant coverage sufficiently high to withstand eliminations without destroying either the usefulness or coverage of remaining test results.

In that connection, it is emphasized that the 35 testers used completed a total of 1,041 individual position identification packets (composed of Tables 3-1 through 3-5 and the Position Identification Process Summary, contained in the Position Identification Handbook) on 359 valid positions. Of the 1,041 completed packets, only 12 were disqualified for errors detailed in Table 4. The resulting disqualification rate of only 1.15% represents substantial evidence supporting the following:

TABLE 3
INPUT RECORD DESCRIPTION

<u>Field Description</u>	<u>Length (Char. or Digit)</u>	<u>Data Type (FORTRAN)</u>	<u>Format (FORTRAN)</u>	<u>Total Length (In Card Columns)</u>
Blank	1		1X	1
Position Number	3	Integer	I3	3
Position Type	1	Real	A1	1
MACOM	1	Integer	I1	1
Tester Number	1	Integer	I1	1
Tester Category	1	Real	A1	1
Blank	1		1X	1
Table 3-1 Factor (5)	1	Real	A1	5
Blank	1		1X	1
Table 3-2 Subfactor (6)	2	Integer	I2	12
Table 3-2 Percentage (6)	3	Integer	I3	18
Blank	1		1X	1
Table 3-2 Score	4	Integer	I4	4
Blank	1		1X	1
Table 3-3 Factor	1	Real	A1	1
Blank	1		1X	1
Table 3-4 Subfactor (4)	2	Integer	I2	8
Blank	1		1X	1
Table 3-4 Score	4	Integer	I4	4
Blank	1		1X	1
Table 3-5 Subfactor (3)	2	Integer	I2	6
Blank	1		1X	1
Table 3-5 Score	3	Integer	I3	3
Blank	1		1X	1
ID Result	1	Real	A1	1
Current ID	1	Real	A1	<u>1</u>
Total				80

Notes:

1. MACOM entry also indicates location (see table following Note 8).
2. Testers are numbered from 1 to 6 (corresponding to A, B, C, D, E, F, respectively). Tester Category is either O, W, E, or C (for Commissioned Officer, Warrant Officer, Enlisted or Civilian, respectively).

TABLE 3 (Continued)

Notes (continued)

3. Position Type is either C (Control) or E (Experimental).
4. Table 3-2 subfactors (reading from left to right) are numbered from 1 to 35.
5. Table 3-4 subfactors (reading from left to right) are numbered from 1 to 24.
6. Table 3-5 subfactors (reading from left to right) are numbered from 1 to 14.
7. ID Result and Current ID are entered as O, W, E, or C (for Commissioned Officer, Warrant Officer, Enlisted, and Civilian, respectively).
8. The input file is recorded on floppy disk using GRC in-house CROMEMCO minicomputer system under the file name 'ADATA.DAT'. Records are sorted in ascending sequence by position number and by MACOM and tester number for each position.

<u>MACOM</u>	<u>Location</u>
1 - TRADOC	Ft. Sill
2 - ACC	Ft. Huachuca
3 - DARCOM	Aberdeen
4 - HSC	Ft. Sam Houston
5 - FORSCOM	Ft. Bragg
6 - USAREUR	Frankfurt
7 - Reserves	Ft. Meade

9. The file layout is depicted on the following page.

TABLE 4
DATA REVIEW, CORRECTION, AND DISQUALIFICATION

Position Number	Tester	Description	ID Position
002G	HIC		
006E	HIC	Table 3-2 tester minor errors in computing score, with no impact on the position ID selected by the tester.	CRC Team corrected computation of error, with no impact on the position ID originally selected by the tester.
010E	HIC	That is, no combination of accurate and/or erroneous scores entered by the tester on Table 3-2 would require the tester to change the position ID originally selected.	and accepted and entered all data into the computer, as corrected.
011F	12C		
023C	HIC		
024G	HIC		
029E	HIC		
031C	15C		
044C	14C		
046C	15C		
065E	14C		
053E	15C		
058C	15C		
062C	22C		
063C	23C		
081E	23C		
111E	25C		
112E	25C		
113E	24C		
113E	25C		
116C	24C		
116C	25C		
117C	24C		
117C	25C		
131E	33C		
137C	31C		
145C	12C		
154C	36C		
157C	36C		
162E	36C		
165C	34C		
172E	34C		
180E	34C		
200C	41C		
211E	41C		
248C	53C		
249E	51C		
251E	51C		
253E	51C		
272C	51C		
278C	55C		
284E	53C		
314I	62C		
319C	63C		

The CLEU team acted as Field Reviewing Authority and assigned that work to a sample of 1000 which would be replaced upon receiving an initial notice. CLEU team assigned additional sources of 1000 "fielding" CLEU^o and 400 "recount" CLEU^o total 1400 case in table 1.

Table 15, scored "Know How" 340, Did not score "Problem Solving" or "Accountability." 13 on DA form flagged by tester as "completely off base."

TABLE 4 (Continued)

Position Number	Tester	Description	Of position
0240	110	Table 3-1 identified position "Officer" requiring tester to proceed direct to Table 3-1. Tester then completed Table 3-2 and appended note: both indicate tester ignored job description in same measure. Tester completed Table 3-3 and appended note indicating disagreement with job description, ID on DA Form listed by tester as "Wait out officer."	GRC team accepted and entered all data, except data from Table 3-2.
0370 1170	150 260	Table 3-2 error in computation resulted in selection of "Employer Identity." Erroneous score of 105 on both positions resulted in selection of "Civilian" identity. Correctly computed scores of 162 and 180, respectively, should result in selection of "Officer" identity. Testers did not complete Tables 3-3, 3-4, or 3-5.	Total error in computation where tester scores should have resulted in selection of "Officer" on Table 3-3. GRC team disqualified results by their failure to score on these positions and did not enter jobs computed.
0990 1200 1580 1670	250 250 350 350	Table 3-1 identified position "Officer" requiring tester to proceed direct to Table 3-3. Testers then completed Table 3-2 anyway, also identifying position "Officer."	GRC team accepted and entered all data, except data from Table 3-2.
1090 2580	250 510	Table 3-2 tester error resulted in aggregate sub-factor percentage allocations exceeding 100% on selected rules, contrary to the instructions listing sub-factor percentage totals on those rules to be more than 100%. Resulting score totals on Table 3-2 exceed 1120, requiring selection of "Officer" position ID. Arbitrary deletion of any one factor by test was to bring aggregate sub-factor percentage allocation within the 100% maximum rule would reduce score totals on Table 3-2 below 120, requiring selection of "Civilian" position ID.	Total computational error for tester directly resulted in selection of third position ID arrived at through improper application of mandatory percentage aggregate item rules in Table 3-2. GRC team disqualified results by their failure to score positions and did not enter into computer.
1210	310	Table 3-3 used "Rule 6c" requiring tester to proceed direct to Table 3-5. Tester then completed Table 3-4 anyway, also identifying position "Officer."	GRC team accepted and entered all data, except data from Table 3-4.
1250 2770	400 550	Table 3-1 used "Rule 6c" requiring testers to proceed direct to Table 3-5 to direct input to given "Commissioned officer" and "Wait out officer." Testers then completed Table 3-3 anyway, but then filled positions "Unlisted."	Total error by testers where Table 3-3 identified positions "Officer" and Table 3-4 identified positions "Unlisted." GRC team disqualified results by their failure to score on these positions and did not enter into computer.
1400	600	Table 3-4 tester error in computing score resulted in selection of <i>Employer position ID</i> (terminals score 180 = "Officer"; correctly computed score 200 = "Commissioned officer"). Tester proceeded to Table 3-5, scoring the position as "Officer."	Total computational error for tester directly resulted in selection of third position ID at variance with ID indicated by tester's computed score. GRC team disqualified results by their failure to score on this position and did not enter into computer.
1410 1430 1440	400 500 500	Table 3-3, all three testers recognized unit can be used to assign off-duty and table provided no means of designating unit commander as command officer, with no further definition required. Reason: "Wait out officer" may not <i>command unit</i> , which has been definition of officer. Case Factor "Officer, PLATON, up ahead," on page 2-11, Revised Draft Position Identification Handbook, December 1990).	GRC team will record Table 3-3 to reflect the letterbox noted by all three testers. The position and ID for results on this position were deleted and were not entered in the computer. GRC team's position can score among all three testers. The computerized test and ID scheme provided no means to measure that can cause because of the letterbox in the table. Testers' failure to delete the command officer position and entered score means identification.

TABLE 4 (Continued)

Position Number	Tester	Description	Disposition
1630	53C	Table 3-4 Identified position "Commissioned Officer" requiring tester to proceed direct to DA Form. Testers then completed Table 3-5 anyway, also identifying position "Commissioned Officer."	GRC team accepted and entered all data, except data from Table 3-5.
176E	53C		
187F	53C		
227C	55C		
339C	65C		
342E	65C		
350E	65C		
186C	440	Table 3-4 score of 400 entered by testers as "UNLISTED," and testers provided direct to DA Form. Score of 300 should have been entered as "Officer" and Table 3-5 should have been completed.	Fatal error by testers. GRC team disqualified results by these testers on these positions and did not enter into computer.
264C	51C		
195E	42C	Table 3-2 tester error in computing score resulted in selection of improper position ID from column score 140 = "Military"; correctly computed score 110 = "Civilian". Tester completed Tables 3-1, 3-4, and 3-5 with final position ID of "Mutant officer."	Fatal computational error by tester directly resulted in selection of final position ID at variance with ID indicated by tester's corrected score. GRC team dis-qualified results by this tester on this position and did not enter into computer.
198E	41C	Table 3-2, tester annotation indicating disapproval with job description, but tester completed all tables in prescribed fashion.	GRC Team accepted and entered all data.
210E	440	Table 3-4, tester annotated test package indicating reservations about scores he/she selected, stating position should be <i>Warrior Officer based on "hands on" technical know how</i> . Tester scored position as Commissioned Officer by a margin of 120 points and completed all tables in prescribed fashion.	GRC Team accepted and entered all data from tables into computer without correction or change.
306C	62C	Table 3-1, tester used "Rule (c)" requiring tester to proceed direct to Table 3-4. Table 3-4 omitted, with tester proceeding direct to Table 3-5.	Fatal error by tester since Table 3-5 must be completed. GRC Team disqualified results by this tester on this position and did not enter into computer.
315C	65C	Table 3-2 score of 120 entered by tester as "Civilian" and tester proceeded direct to DA Form. Score of 120 should have been entered as "Military" and subsequent tables should have been completed as necessary.	Fatal error by tester. Since score of 120 should have been entered as "Military," GRC team disqualified results by this tester on this position and did not enter into computer.
363C	All	(Note: These four positions were selected and processed after completion of the controlled field test.)	Fatal error in selecting these positions for the test. Instructed to select four positions after completion of controlled field test, which fit the definitions of "Military by Law of Treaty" and/or "Systemal Military Requirement," the RACIL selected positions which do not fit these handbook definitions. Testers were subsequently asked to complete a packet, which were then mailed to DAPE RMC. Testers apparently had knowledge of ARSIA instructions on nature of positions to be selected, and scored Table 3-1 based on that knowledge. GRC team disqualified all of these positions in view of position selection error, as well as all tester results on these positions, and did not enter into computer.
364C		Table 3-1 Identified all of these positions as "Military by Law of Treaty" and/or "External Military Requirement." Some of the positions qualify in either category based on position description content and DA Form Position Identification handbook definitions.	
365C			
366C			

TABLE 4 (Continued)

Position Number	Tester	Description	Implication
600C	71C 720 73C	This planned sample of Army Reserve and Army National Guard positions was inadvertently limited to positions requiring full-time incumbency by personnel holding Federal civilian (GS or BE) status--some of all concurrently holding Army Reserve/National Guard military status--so-called dual-status technician positions. Position description information focused largely on civilian technician functions with limited information on military position responsibilities after mobilization. In some cases, position description information included apparent personnel/technical views of the writer regarding such matters as the relative utility of the dual status technician system and related issues. It was originally prescribed in the Expanded Field Test Plan dated 15 October 1980 that testers on these sample positions would forward a follow on commentary through channels to DAPC-RRB within 5 working days after completion of the test, focusing on applicability of the Handbook methodology to Reserve and National Guard positions.	to avoid distortion of test results and analyses, ODR and CRC team representatives visited these positions and should be disqualifed. Data on these positions and tester results were not entered into the computer.
601C			
602C			
603C			
604C			
605C			
606C			
607C			
608C			
609C			
610C			
611C			
612C			
613C			
614C			

- Conclusion: The relative simplicity and comprehension level of the definitions, techniques and methods prescribed in the Position Identification Handbook allow their effective use by qualified manpower management personnel with a negligible error rate approximating 1%. That error rate can be even further reduced as experience is gained in the proper use of the Handbook.

The following subsections summarize the GRC analyses of test results on each of the quantitative and decision-logic tables prescribed in the Handbook.

PART II TEST ANALYSIS - RESULTS BY HANDBOOK TABLE

Recall that the first step in our analysis was designed to collect and eliminate those test results which contained a fatal flaw in either of the following two broad areas:

- MACOM-prepared individual position packages which contained materials precluding a valid position assessment by testers to whom these positions were referred for evaluation. As previously noted, disqualification of test results on these position packets reduced the number of valid test positions to 359.
- Tester-prepared individual position evaluations which contained errors of such magnitude in applying the Position Identification Handbook methodology that they obviated a valid position assessment by the testers concerned. As previously noted, disqualification of tester results in these cases represented only 1.15% of all tester position evaluations.

Aggregation of these fatally flawed test results allowed an assessment of the relative simplicity and comprehension level of Handbook content. That assessment having been made, these fatally flawed test results were disqualified, and they are not further considered in the

data summaries which follow. Their elimination from further consideration is predicated on the assumption that reviewing authorities at field or headquarters level would normally detect and correct these errors before finalizing individual position identification actions, were the Handbook currently in actual use. Where circumstances surrounding flawed test results were such that these flaws could be corrected by a simulated reviewing authority without bias, the GRC project team assumed the role of reviewing authority and made the necessary corrections (see individual cases listed in Table 4, above). Where circumstances were otherwise, the test results concerned were disqualified from further consideration in the analyses which follow to avoid the biased findings which might otherwise ensue.

Remaining valid test results were aggregated and analyzed, by Handbook table, using the following definitions and guidelines:

- Consensus: A tester choice is in consensus if it coincides with that made by at least one other tester of the same group of two or three testers. Consensus requires that there be at least two testers in any one group who access the same table, evaluate the same position, and select the same factor or subfactor.
- Non-Consensus: A tester choice is tabulated as not in consensus when at least two testers of the same group access the same table, evaluate the same position, and the tester concerned does not select the same factor or subfactor selected by the other tester(s) in the same test group. It is emphasized that, for purposes of this analysis, testers selecting the same factor on a table in the Position Identification Handbook which also employs subfactors are not in consensus unless they select identical subfactors.
- Tabulations by Position: In comparing tabulations by position with tester results by factor/subfactor, it must be remembered that:

- Two or three testers evaluate each position.
- To determine position identify, a tester may select more than one factor/subfactor on the same table in the Position Identification Handbook.

Accordingly, the total number of positions shown in tabulations contained in this analysis will not necessarily agree with the totals for associated data arrayed by factor and/or subfactor in the same tabulation.

- Definition of Control and Experimental Positions. Based on a COTR decision, the definitions contained in the GRC expanded test plan submitted on 15 October 1980 were reversed to read as follows:
 - Control Positions. A subset of positions, each of which will on balance be readily identifiable as falling within a specific one of the four manpower categories (commissioned officer, warrant officer, enlisted, civilian). These will be positions which are uniquely identified by virtue of clear-cut and predominant job elements or conditions of employment directly associated with the respective individual manpower categories.
 - Experimental Positions. A remaining subset of positions not readily identifiable or uniquely associated with the respective manpower categories.

Handbook Table 3-1: Identify Military and Civilian Positions

Handbook Table 3-1 is reproduced on the following page. Using Handbook Table 3-1, testers reached consensus in applying one, or more, identification factors to 97% of the 359 valid test positions. These results are detailed in Table 5.

One measure of the relative weight which should be accorded the high level of 97% consensus reached on Handbook Table 3-1 may be found

TABLE 3-1

IDENTIFY MILITARY AND CIVILIAN POSITIONS (APPLY RULES IN CONSECUTIVE ORDER)

R U L E	I. IF THE POSITION FITS THE DEFINITION OF:	II. THEN RULES:	III. AND POSITION IDENTIFI- CITY WILL BE ESTAB- LISHED AS:	IV. SUBJECT TO FURTHER DEFINI- TION ORDER:
(a)	COMBAT	(b) THROUGH (p) <u>WILL NOT BE APPLIED</u>	MILITARY	TABLE 3-3
(b)	COMBAT SUPPORT	(c) THROUGH (p) <u>WILL NOT BE APPLIED</u>	MILITARY	TABLE 3-3
(c)	COMBAT SERVICE SUPPORT	(d) THROUGH (p) <u>WILL NOT BE APPLIED</u>	MILITARY	TABLE 3-3
(d)	PRETRAINED CONTINGENCY/WARTIME AUGMENTATION	(e) THROUGH (p) <u>WILL NOT BE APPLIED</u>	MILITARY	TABLE 3-3
(e)	MILITARY BY LAW OR TREATY	(f) THROUGH (p) <u>WILL NOT BE APPLIED</u>	MILITARY	TABLE 3-3
(f)	CIVILIAN BY LAW OR TREATY	(g) THROUGH (p) <u>WILL NOT BE APPLIED</u>	CIVILIAN	DA FORM XX*
(g)	EXTERNAL MILITARY REQUIREMENT	(h) THROUGH (p) <u>WILL NOT BE APPLIED</u>	MILITARY	TABLE 3-3
(h)	EXTERNAL CIVILIAN REQUIREMENT	(i) THROUGH (p) <u>WILL NOT BE APPLIED</u>	CIVILIAN	DA FORM XX*
(i)	SECURITY	(j) THROUGH (p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(j)	INTELLIGENCE	(k) THROUGH (p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(k)	CURRENT MILITARY BACKGROUND/ TRAINING REQUIRED	(l) THROUGH (p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(l)	MORALE, WELFARE, AND RECREATION (MWR) ACTIVITIES	(m) THROUGH (p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(m)	CIVILIAN/MILITARY MIX REQUIRED	(n) THROUGH (p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(n)	AUTHORITY AND DISCIPLINE	(o) THROUGH (p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(o)	TRADITION AND/OR CUSTOM	(p) <u>MAY ALSO APPLY</u>	NOT YET FINALIZED	TABLE 3-2
(p)	UNUSUAL HOURS OR WORKING CONDITIONS	(PROCEED TO COLUMN III)	NOT YET FINALIZED	TABLE 3-2

* No further position definition is required for these positions.

TABLE 5
 TESTER CONSENSUS ON HANDBOOK TABLE 3-1

	<u>Positions</u>	
	<u>Number</u>	<u>Percent</u>
<u>Positions Used for Analysis</u>	359	100.0
<u>Tester Consensus on One or More Factors</u>	348	97.0
<u>Tester Non-Consensus on Factors</u>	11	3.0
• <u>Experimental Positions</u>	4	1.1
• <u>Control Positions</u>	7	1.9
• <u>Three-Tester Positions</u>	5	1.4
• <u>Two-Tester Positions</u>	6	1.6

in the results of the initial demonstration test of the Handbook methodology completed in 1979 (see Appendix E of the GRC test plan submitted on 15 October 1980). In that initial demonstration test, overall test results showed that "there was 100% agreement on use of the tables, rules, and scoring on 14 of (a total of) 30 positions" used, for an overall consensus rate of 47%. To provide a closer comparison with that statistic, Table 6 presents a summary of consensus use of each factor on Handbook Table 3-1, showing frequency of use of all factors and the percentage rate of agreement/disagreement by each group of three or two testers. On all factors, the rate of agreement exceeded the 47% overall rate on the 1979 demonstration test; and in all but four factors, the rate of agreement substantially exceeded the 1979 rate.

- In the case of the "Combat Support" factor--with a 52% agreement rate--the test results indicate that despite their experience in the field of manpower management, individual testers may interpret differently the definitions of "Combat Support" and "Combat Service Support." In the bulk of cases in which disagreement was recorded on those factors, it was caused by the disagreeing tester selecting "Combat Support" while his cohort testers selected "Combat Service Support" on the same position, or vice versa. Thus, the disagreement rate in the case of the "Combat Support" factor may highlight a need for additional training for manpower managers on the distinction between "Combat Support" and "Combat Service Support" functions. Wide dissemination and use of the Position Identification Handbook should provide an excellent medium for that training.
- In the case of the "Civilian by Law or Treaty" factor--with a 57.1% agreement rate--the test results are based on a small sample size. Small sample size results may not be fully definitive in the matter of tester consensus. The same might be said of the 100% consensus level reached on the "External Military Requirement" factor based on a sample size of only two uses. In the case of both factors, however,

TABLE 6

FACTOR CONSENSUS BY FREQUENCY OF USE ON HANDBOOK TABLE 3-1

Rule	Factor	Frequency of Use	Consensus Use			Non-Consensus Use		
			Frequency	Per Position	By 2	Frequency	On Positions	Control
			Use	%	Testers	Use	%	Experimental
(a)	Combat	44	43	97.7	11	5	1	2.3
(b)	Combat Support	25	13	52.0	3	2	12	48.0
(c)	Combat Service Support	92	84	91.3	18	15	8	8.7
(d)	Pretrained Contingency	0	0	---	0	0	0	---
(e)	Military by Law or Treaty	13	9	69.2	1	3	4	30.8
(f)	Civilian by Law or Treaty	7	4	57.1	0	2	3	42.9
(g)	External Military Requirement	2	2	100.0	0	1	0	0.0
(h)	External Civilian Requirement	0	0	---	0	0	0	---
(i)	Security	93	70	75.3	12	17	23	24.7
(j)	Intelligence	55	41	74.6	7	10	14	25.4
(k)	Current Military Background	269	209	77.7	41	43	60	22.3
(l)	Morale, Welfare and Recreation	58	52	89.7	10	11	6	10.3
(m)	Civilian/Military Mix	619	553	89.3	127	86	66	10.7
(n)	Authority and Discipline	268	184	68.7	24	56	84	31.3
(o)	Tradition and/or Custom	195	107	54.9	17	28	88	45.1
(p)	Unusual Hours or Working Conditions	44	21	47.7	3	6	23	52.3
	Total	1784	1392	78.0	274	285	392	22.0
							182	210

the test results indicate an acceptable level of tester comprehension, and of factor ability to discriminate between alternative position identities.

- In applying both the "Tradition and/or Custom" and the "Unusual Hours or Working Conditions" factors, the exercise by testers of a high degree of subjective judgment is called for. The judgmental nature of these factors, despite their long years of use in defending position identification decisions within the Department of Defense, highlights the need for a well rounded training program supporting implementation of the Position Identification Handbook. Such a program would greatly enhance the degree of objectivity and consistency brought to bear in applying these and other factors to the position identification decision process. In point of fact, the training and implementation methods used in implementing the Position Identification Handbook are seen as equal in importance to the Handbook itself, if the Army is to achieve its objective of establishing an improved, consistent, and defensible methodology for identifying and justifying its management processes in the manpower categorization arena. Given those effective training and implementation methods, the test results indicate an acceptable level of tester comprehension and factor ability to discriminate between alternative position identities.

To complete our evaluation of test results on Handbook Table 3-1, the GRC project team completed an analysis of variance on the consensus use of factors. Results are displayed in Table 7. There are separate tabulations for positions in the control group, positions in the experimental group, and for all positions taken as a single group. These percentages were arrived at using the formula:

$$P_{ij} = 100(N_{ij}/T_{ij})$$

TABLE 7
ANALYSIS OF VARIANCE - CONSENSUS USE
OF FACTORS ON HANDBOOK TABLE 3-1

<u>Factor</u>	<u>Control Positions</u>	<u>Experimental Positions</u>	<u>Control and Experimental Positions</u>
Combat	97.7	N/A	97.7
Combat Support	52.0	N/A	52.0
Combat Service Support	93.0	60.0	91.3
Pretrained Contingency/Wartime Augmentation	N/A	N/A	N/A
Military by Law or Treaty	88.9	50.0	69.2
Civilian by Law or Treaty	57.1	N/A	57.1
External Military Requirement	N/A	100.0	100.0
External Civilian Requirement	N/A	N/A	N/A
Security	73.8	82.3	75.3
Intelligence	86.8	47.1	74.6
Current Military Background/ Training Required	77.2	78.3	77.7
Morale, Welfare, and Recreation (MWR) Activities	96.2	42.9	89.7
Civilian/Military Mix Required	90.0	88.8	89.3
Authority and Discipline	63.0	77.3	68.7
Tradition and/or Custom	63.1	47.8	54.9
Unusual Hours or Working Conditions	50.0	45.8	47.7
Mean	76.1	65.5	74.7
Variance	276.8	376.3	278.7
Standard Deviation	17.3	20.3	17.3

where

P_{ij} is the percentage of consensus usage of the i th factor for positions in the j th position group.

N_{ij} is the total number of times a tester who was in consensus stated that the i th factor was applicable to a position in the j th position group.

T_{ij} is the total number of times a tester, either in or out of consensus, stated that the i th factor was applicable to a position in the j th position group.

An entry N/A in the table means that none of the testers used the factor concerned in evaluating positions. For example, the entry N/A in the first row of the table indicates that none of the positions in the experimental group were seen by the testers as combat positions.

The last three rows in the table give the means, variances, and standard deviations of the percentages of consensus usage of the factors for each of the position groups. These were computed using the mathematical formulas:

$$M_j = \frac{1}{n_j} \sum_{i=1}^{n_j} P_{ij}$$

$$V_j = \frac{1}{n_j} \sum_{i=1}^{n_j} (P_{ij} - M_j)^2$$

$$S_j = \sqrt{V_j}$$

where

M_j is the mean or average percentage of consensus usage of factors for positions in the j th position group.

V_j , S_j are, respectively, the variance and standard deviation of the consensus percentages for the j th position group.

N_j is the number of factors checked at least once as being applicable to a position in the j th position group.

Of particular interest is the standard error of the mean presented in Table 7. The standard error of the mean provides an estimate of the confidence limits of the overall test results on Handbook Table 3-1. It is computed by dividing the standard deviation by the square root of the number of factors, S/\sqrt{n} . The 90% confidence limits on the standard error of the mean would be $1.77 S/\sqrt{n}$, or 8.2. Therefore, a similar test performed under similar conditions, but with different testers and positions, could expect to have a consensus score between 66.5 and 82.9. Of course, average scores outside this range could be generated if position documentation, tester preparation, or other significant testing factors were allowed to substantively affect the comparability of test results.

It is also useful to examine the distribution of factor consensus usage within Table 3-1. Specific factors that scored below the table average can be identified using a standard statistical confidence interval test. The 10% level of significance was used to identify the lower bounds of the confidence interval.

For the experimental positions, no factor fell below the 10% level of significance. For the control positions, consensus usage of the "Combat Support" and "Unusual Hours or Working Conditions" factors was below average at the 10% level of significance. For all positions regarded as a single group, the "Unusual Hours or Working Conditions" factor was again below average at the 10% level of significance. We have already discussed likely reasons and remedies for these deviations in our review of Table 6, above.

Handbook Table 3-2: Point Score Identification of Military and Civilian Positions

Handbook Table 3-2 is reproduced on the following page.

Recall that testers moved to Handbook Table 3-2 having already reached consensus on one or more factors applicable to 97%--or 348--of the total of 359 valid positions (see Table 5). Put another way, they were already in consensus by factor on those positions.

Table 3 presents their degree of consensus by subfactor. As indicated, the incidence of consensus by subfactor was measurably higher than non-consensus by subfactor, and:

- There were few instances of non-consensus in which testers selected subfactors with a "spread" of more than two "blocks" (see Handbook Table 3-2; a "spread" of two "blocks" occurs when testers select adjacent subfactors appearing within the same factor on Handbook Table 3-2). The only exception occurred on subfactors under "Current Military Background/Training Required"--which is a factor calling for a broader exercise of subjective judgment. The importance of a particularly effective Handbook implementation and training program in such areas has already been discussed above.
- In any case, instances of non-consensus by subfactor do not alter the fact that the disagreeing testers by subfactor had previously reached consensus by factor--mitigating the relative weight which should be accorded to disagreements by subfactor.

Table 8 includes a display measuring degrees of consensus/non-consensus on the percentage weights assigned to each subfactor by each tester group. The very high degree of consensus on percentage weights within tester groups is further enhanced by the relatively low "range" of disagreement in selecting percentage weights where testers were not in consensus.

TABLE 3-2

POINT SCORE IDENTIFICATION OF MILITARY AND CIVILIAN POSITIONS

I.		II.						III.	IV.	V.
R U L E		IF THE POSITION FITS THE DEFINITION OF:		THEN: • SELECT THE BLOCKS THAT APPLY TO THE POSITION; • STATE PERCENT OF WORK TIME COVERED BY EACH BLOCK YOU SELECTED; • AND COMPUTE THE POINT SCORE FOR EACH BLOCK YOU SELECTED.						SUBJECT TO FURTHER DEFINITION UNDER:
				TOTAL FOR ALL BLOCKS UNDER RULES (a) TO (e) MAY NOT EXCEED 100%						
(a)	SECURITY	CONTROL STRATEGIC INVESTIGATIVE TRAFFIC ACCIDENTS	20X %	CONTROL STRATEGIC INVESTIGATIVE TRAFFIC ACCIDENTS	40X %	CONTROL STRATEGIC INVESTIGATIVE TRAFFIC ACCIDENTS	40X %	CONTROL STRATEGIC INVESTIGATIVE TRAFFIC ACCIDENTS	40X %	CONTROL STRATEGIC INVESTIGATIVE TRAFFIC ACCIDENTS
(b)	INTELLIGENCE	CORRELATE/ANALYZE	80X %	CORRELATE/ANALYZE	90X %	CORRELATE/ANALYZE	90X %	CORRELATE/ANALYZE	90X %	CORRELATE/ANALYZE
(c)	CURRENT MILITARY BACKGROUND/TRAINING REQUIRED	CLASSROOM AND TECHNICAL TRAINING	60X %	CLASSROOM AND TECHNICAL TRAINING	260X %	CLASSROOM AND TECHNICAL TRAINING	260X %	CLASSROOM AND TECHNICAL TRAINING	260X %	CLASSROOM AND TECHNICAL TRAINING
(d)	MORALE WELFARE AND RECREATION (MWR) ACTIVITIES	SUPERVISE OR PARTICIPATE IN AN MWR ACTIVITY	20X %	SUPERVISE OR PARTICIPATE IN AN MWR ACTIVITY	80X %	SUPERVISE OR PARTICIPATE IN AN MWR ACTIVITY	80X %	SUPERVISE OR PARTICIPATE IN AN MWR ACTIVITY	80X %	SUPERVISE OR PARTICIPATE IN AN MWR ACTIVITY
(e)	CIVILIAN/MILITARY MIX REQUIRED	PROVIDE SERVICES AND/OR EXPERTISE IN A POSITION WHICH DOES NOT REQUIRE MILITARY SKILLS OR JOINTS FOR SPECIAL DUTIES	10X %	PROVIDE SERVICES AND/OR EXPERTISE IN A POSITION WHICH DOES NOT REQUIRE MILITARY SKILLS OR JOINTS FOR SPECIAL DUTIES	20X %	PROVIDE SERVICES AND/OR EXPERTISE IN A POSITION WHICH DOES NOT REQUIRE MILITARY SKILLS OR JOINTS FOR SPECIAL DUTIES	20X %	PROVIDE SERVICES AND/OR EXPERTISE IN A POSITION WHICH DOES NOT REQUIRE MILITARY SKILLS OR JOINTS FOR SPECIAL DUTIES	20X %	PROVIDE SERVICES AND/OR EXPERTISE IN A POSITION WHICH DOES NOT REQUIRE MILITARY SKILLS OR JOINTS FOR SPECIAL DUTIES
FOR RULE (f) ENTRIES IN ALL BLOCKS MAY NOT EXCEED 100%										
(f)	AUTHORITY AND DISCIPLINE	SUPERVISE MWR	24X %	SUPERVISE MWR	240X %	SUPERVISE MWR	240X %	SUPERVISE MWR	240X %	SUPERVISE MWR
FOR RULE (g) ENTRIES IN ALL BLOCKS MAY NOT EXCEED 100%										
(g)	TRADITION AND/OR CUSTOM	EXECUTE TASKS IN AN ORGANIZATION	24X %	EXECUTE TASKS IN AN ORGANIZATION	60X %	EXECUTE TASKS IN AN ORGANIZATION	60X %	EXECUTE TASKS IN AN ORGANIZATION	60X %	EXECUTE TASKS IN AN ORGANIZATION
FOR RULE (h) ENTRIES IN EACH BLOCK MAY NOT EXCEED 100%										
(h)	UNUSUAL HOURS OR WORKING CONDITIONS	REMITTE VIOLETION	60X %	REMITTE VIOLETION	90X %	REMITTE VIOLETION	90X %	REMITTE VIOLETION	90X %	REMITTE VIOLETION
(i)										
(j)										

TABLE 3 6
TABLE 3 3

TABLE 8

TESTER CONSENSUS ON HANDBOOK TABLE 3-2

FACTOR	CONSENSUS BY FACTOR FROM TABLE 3-1	TESTER CONSENSUS DEGREE OF CONSENSUS										TESTER NON-CONSENSUS PROXIMITY TO CONSENSUS																					
		TOTAL BY FACTOR		BY SUBFACTOR										TOTAL BY FACTOR		BY SUBFACTOR RANGE																	
				1	2	3	4	5	6	BY PERCENTAGE RANGE						Spread of 1	Spread of 2	Spread of 3	Spread of 4	Spread of 5	BY PERCENTAGE RANGE												
																0 to 10 10 2 20 2	11 to 20 20 2 30 2	21 to 30 30 2 40 2	31 to 40 40 2 50 2	41 to 50 50 2	0 to 10 10 2 20 2	11 to 20 20 2 30 2	21 to 30 30 2 40 2	31 to 40 40 2 50 2	41 to 50 50 2								
SECURITY	27	21		2	8	6	3	5	0	7	2	6	4	3	2						3	3	0	0	0	2	0	2	0	2	0	0	0
INTELLIGENCE	16	10		4	5	1	4	0	1	6	2	3	1	0	1						1	2	0	1	2	0	1	0	1	0	0	0	
CURR. MILITARY BKGD/TRAINING REQUIRED	81	63		46	4	6	8	5	2	23	7	7	11	10	13						2	3	0	2	1	2	1	1	1	1	1	0	
MOALE, WELFARE AND RECREATION (MWR) ACTIVITIES	20	19		19	0	0				12	0	2	1	0	4						1	0					0	1	0	0	0	0	0
CIVILIAN/ MILITARY MIX REQUIRED	206	175		78	81	3	0			73	17	17	13	45	46						26	6	1				12	2	2	5	3	7	
AUTHORITY AND DISCIPLINE	82	72		50	27	17				18	10	12	5	6	18						8	2					1	2	1	1	1	1	2
TRADITION AND/OR CUSTOM	45	30		18	8	14				6	12	6	3	3	10						11	4					2					1	
UNUSUAL HOURS OR WORKING CONDITIONS	9	9		0	1	7	2			4	2	2	0	0	2						0	0	0			0	0	0	0	0	0	0	

Handbook Table 3-3: Identify Officer and Enlisted Positions

Handbook Table 3-3 is reproduced on the following page.

As indicated in Table 9, the incidence of non-consensus on Hand-
book Table 3-3 was effectively limited to only one out of 139 positions--
for a consensus rate of 99.28%.

TABLE 3-3

IDENTIFY OFFICER AND ENLISTED POSITIONS

R U B	I. IF THE POSITION:				III. AND POSITION OR IDENTITY WILL BE ESTABLISHED AS:	IV. SUBJECT TO:
	1. IF THE POSITION:	2. THEN:	II. RULE (b), (c), (d) and (e) WILL NOT BE APPLIED	III. RULE (c), (d) and (e) WILL NOT BE APPLIED		
a)	FITS THE DEFINITION OF: • COMMISSIONED OFFICER BY LAW OR TREATY				COMMISSIONED OFFICER	NO FURTHER DEFINITION. ENTER IDENTITY ON DA FORM XX
b)	FITS THE DEFINITION OF: • WARRANT OFFICER BY LAW OR TREATY				WARRANT OFFICER	NO FURTHER DEFINITION. ENTER IDENTITY ON DA FORM XX
c)	FITS THE DEFINITION OF: • COMMAND, PLATOON OR ABOVE; OR • DISCIPLINARY POWERS (UCMU); OR • OFFICER BY LAW OR TREATY				OFFICER	FURTHER DEFINITION UNDER TABLE 3-5
d)	FITS THE DEFINITION OF: • ENLISTED BY LAW OR TREATY				ENLISTED	NO FURTHER DEFINITION. ENTER IDENTITY ON DA FORM XX
e)	DOES NOT FALL UNDER RULES (a), (b), (c), or (d)				NOT YET FINALIZED	FURTHER DEFINITION UNDER TABLE 3-4

TABLE 9
TESTER CONSENSUS ON HANDBOOK TABLE 3-3

Consensus Positions from Tables 3-1 and 3-2	Tester Consensus						Tester Non-Consensus					
	Total Positions	By Factor					Total Positions	By Factor				
		A	B	C	D	E		A	B	C	D	E
139	137	8	0	33	0	305	2*	1*	0	1*	0	2
Three-Tester Consensus	69											
Two-Tester Consensus	68											

* One position categorized "commissioned officer" by one tester on Table 3-3 was subsequently categorized "commissioned officer" by a second tester on Table 3-4, thus effectively reducing overall test non-consensus attributable to Table 3-3 to one position--rather than the two positions shown above.

Handbook Table 3-4: Point Score Identification of Officer and Enlisted Positions

Handbook Table 3-4 is reproduced on the following page.

As indicated on Table 10:

- Absolute consensus by subfactor, plus near-consensus where testers selected subfactors with a "spread" of either two or three "blocks" on Handbook Table 3-4, prevailed for all factors.
- Absolute or two-out-of-three tester consensus in determining position identity on Handbook Table 3-4 achieved a rate of 96.72%--with identity non-consensus occurring on only four of a total of 122 positions.

TABLE 3-4

POINT SCORE IDENTIFICATION OF OFFICER AND ENLISTED POSITIONS

I. POINT SCORE IDENTIFICATION OF OFFICER AND ENLISTED POSITIONS		II. THEN SELECT THE SINGLE BLOCK WITH THE HIGHEST POINT SCORE THAT BEST DESCRIBES THE POSITION:										III. NOW ENTER FOR RULE SCORE TOTAL COLUMN III		IV. AND POSITION IDENTITY WILL BE ESTABLISHED AS:		V. SUBJECT TO:	
B	If THE POSITION FITS THE DEFINITION OF:											TOTAL IF BELOW 300	TOTAL IF 300 TO 450	TOTAL IF ABOVE 450	ENLISTED	OFFICER	COMMISSIONED OFFICER
(a)	KNOWLEDGE	Knowledge of Basic Operations which require Team Function Training	50	Broad Knowledge of Military Operations and Subjects	70	Knowledge of an Exceptional Way of Execution and Variety of Functions	90	Knowledge of a Wide Range of Concepts, Principles and Practices in a Professional Occupation	290	Mastery of a Professional Field and the Ability to Develop New Hypotheses and Theories	410	Advanced Degree Required	560				
(b)	SUPERVISORY CONTROL	Work as Enlisted and Enlisted Supervisors as Directed	30	Plan and Carry Out Work in Accordance with Accepted Practice	30	Manage Technical Aspects of Work	60	Take Responsibility for Objectives and Performance	80	Set Overall Objectives, Establish Resource Levels, Consult with Managers	300	Provide Direction on Broad National Functions Coordinate with Top Management	760				
(c)	INSTRUMENT AND GUIDELINES	Follow Detailed Instructions, Set Guidelines for all Deviations	30	Apply Specific Guidelines Effectively	30	Form Established Procedures/ Guidelines, Select and Apply Best Approach	100	Interpret and Apply Detailed Guidelines, Analyze Results, Recommend Changes	130	Adapt Objectives, Set Limits, Guidelines and Develop Improved Alternatives	190	Interpret and Apply Broad Guidelines and Legislation	290				
(d)	DECISION-MAKING AND COMPLEXITY	Follow Specific Instructions on Work Quickly Mastered	30	Select Sources of Information and Type of Action, Directive, Based Upon Willing Evidence	50	Decide What Needs to be Done, Select and Apply Established Alternatives	80	Direct, Verify, Coordinate, Plan, Monitor, Make Recommendations	90	Originate, Verify, Coordinate, Plan, Monitor, Make Recommendations, Will Be Used	230	Decide Concepts, Theories, Programs, Content and Character of Operations	410				
(e)																	NO FURTHER DEFINITION ENTER ON DA FORM XX
(f)																	FURTHER DEFINITION UNDER TABLE 3-5
(g)																	NO FURTHER DEFINITION ENTER ON DA FORM XX

TABLE 10
TESTER AND POSITION IDENTITY CONSENSUS ON HANDBOOK TABLE 3-4

Consensus Positions from Table 3-3	Tester Consensus on Table 3-4				
	By Subfactor Range	Knowledge	Supervisory Control	Judgment and Guidelines	Decision-Making and Complexity
122	Absolute Consensus	40	31	33	42
	Spread of 2	53	44	54	50
	Spread of 3	22	31	24	23
	Spread of 4	8	13	8	4
	Spread of 5	0	2	1	1
	Spread of 6	0	1	0	0
	Single Vote	0	2	0	1

Consensus Positions from Table 3-3	Position Identity Consensus on Table 3-4			Position Identity Non-Consensus on Table 3-4
	Category	Absolute Consensus	Two Out of Three	
122	Enlisted	35	7	
	Officer	15	6	
	Commissioned Officer	29	9	
	Officer or Commissioned Officer		17	
	Total	118		4

Handbook Table 3-5: Point Score Identification of Commissioned Officer and Warrant Officer Positions

Handbook Table 3-5 is reproduced on the following page.

As indicated on Table 11:

- Absolute consensus by subfactor, plus near-consensus where testers selected subfactors with a "spread" of either two or three "blocks" on Handbook Table 3-5, prevailed for all factors.
- Absolute or two-out-of-three tester consensus in determining position identity on Handbook Table 3-5 achieved a rate of 87.18%--with identity non-consensus occurring in only five of a total of 39 positions.

TABLE 3-5

POINT SCORE IDENTIFICATION OF COMMISSIONED OFFICER AND WARRANT OFFICER POSITIONS

I. REVIEW THE POSITION AND THE DEFINITION OF:	II. THEN FOR EACH RULE SELECT THE SINGLE BLOCK WITH THE HIGHEST POINT SCORE THAT BEST DESCRIBES THE POSITION:						III. NOW ENTER SCORES AND ADD COLUMN:	IV. AND POSITION IDENTITY WILL BE ESTABLISHED AS:
	Supervise Technical Service Activity	Employ Special Technical Skills; Operate Complex Equipment	In-depth Expertise in Several Related Technical Skills	Staff or Line Planning/ Programming/ Management/ Organization/ Responsibilities	Responsibility for Military Operations and Force Management			
(a) KNOW-HOW	40	60	70	270	310			
(b) PROBLEM SOLVING	60	70	70	250	280			
(c) ACCOUNTABILITY								
	Receipt and Account for Property	Responsible for Administrative and Support Services	Perform Technical Management Functions	Develop Functional Policies and Advise on Implementation	Control Substantial Resources			
(d)	40	70	70	140	170		TOTAL IF 360 OR ABOVE	COMMISSIONED OFFICER - ENTER ON DA FORM XX
(e)							TOTAL IF BELOW 360	SEE NOTES (1) AND (2), BELOW

SELECT THE NOTE WHICH APPLIES

NOTE (1): If an appropriate warrant officer MOS exists, the position will be identified for warrant officer incumbency. Proceed directly to DA Form XX.

NOTE (2): If an appropriate warrant officer MOS does not exist, proceed to rule (d), table 3-6.

TABLE 11
TESTER AND POSITION IDENTITY CONSENSUS ON HANDBOOK TABLE 3-5

Consensus Positions from Tables 3-3 and 3-4	Tester Consensus on Table 3-5			
	By Subfactor Range	Know-How	Problem Solving	Accountability
39	Absolute Consensus	16	15	20
	Spread of 2	13	15	14
	Spread of 3	5	3	4
	Spread of 4	1	5	1
	Spread of 5	4	1	

Consensus Positions from Tables 3-3 and 3-4	Position Identity Consensus on Table 3-5				Position Identity Non-Consensus on Table 3-5
	Category	Absolute		Two Out of Three	
39	Commissioned Officer	Two Tester	Three Tester	8	1
	Warrant Officer	11	2	1	
	Total	34			5

Handbook Position Identification Process Summary

The Handbook Position Identification Process Summary is reproduced on the following page.

Because Table 3-6, Identify Military Force Structure Requirements, was not used in the expanded field test, Part II of the Position Identification Process Summary was not used by the testers. Further, certain data which would be needed for entry in items 1 through 7 and 11 through 14 were either not included in test packets or not required for entry by testers; certain of these items on the forms were, accordingly, not used. The portions of the form which were used were completed by testers without apparent difficulty and the form should serve as an accurate summary for the record of the position identification decision process when in use in the field.

PART II TEST RESULTS AND CONCLUSIONS

Table 12 summarizes the position identification outcomes of the expanded field test, by MACOM, and for all participating MACOMs as a group. The summary is constructed to compare the current identification of each test position with the position identification decision reached by the testers using the Handbook methodology.

In assessing these position identification outcomes of the expanded field test, the following points must be given full consideration.

- As indicated in Tables 6 and 7, the test was administered without a device which would allow application of the "Pre-trained Contingency/Wartime Augmentation" factor in Handbook Table 3-1. An assessment made by the GRC project team in 1979 indicated a pretrained contingency/wartime augmentation requirement in the active force alone of more than 35,000 military positions (see Table 13).
- As previously noted, the test was administered without a device which would allow application of Handbook Table 3-1, including the following factors:

POSITION IDENTIFICATION PROCESS SUMMARY					
For use of this form see DA Pam 570-X Proponent agency: JCSPER					
1. ORGANIZATION		2. TOA/MTQE		3. CCNUM	4. EDATE
5. POSITION DESCRIPTION		6. PARAGRAPH		7. LINE	
3. PART I - DETERMINE IDEAL IDENTITY					
	TABLE	RULE	SCORE	POSITION IDENTIFICATION	
				(✓)	CATEGORY
4. STEP 1 DISTINGUISH BETWEEN MILITARY & CIVILIAN	3-1			(✓)	MILITARY
					CIVILIAN
					NOT YET FINALIZED
	3-2			(✓)	MILITARY
				CIVILIAN	
5. STEP 2 IDENTIFY OFFICER AND ENLISTED	3-3			(✓)	COMMISSIONED OFFICER
					WARRANT OFFICER
					OFFICER
					ENLISTED
	3-4			(✓)	COMMISSIONED OFFICER
					OFFICER
		ENLISTED			
6. STEP 3 DISTINGUISH BETWEEN COMMISSIONED AND WARRANT OFFICER	3-5			(✓)	COMMISSIONED OFFICER
					WARRANT OFFICER
					NO WAR OFF SPECIALTY
9. PART II - EXAMINE FOR ALTERNATE IDENTITY					
REASON	(✓)	TABLE	HQ DA AUTHORITY	POSITION IDENTIFICATION	
				(✓)	CATEGORY
ROTATION BASE		3-6		(✓)	COMMISSIONED OFFICER
CAREER PROGRESSION					WARRANT OFFICER
NO QUALIFIED CIV. AVAILABLE					ENLISTED
NO WARRANT OFF SPECIALTY AVAILABLE					
10. FINAL IDENTITY (OFF, WO, ENL, OR CIV.)		11. CODE	12. NAME & GRADE OF ANALYST		13. SIGNATURE
					14. DATE

DA FORM
DATE

3035-80

AD-A122 839

QUANTITATIVE PROCEDURE FOR POSITION IDENTITY DEFINITION
(U) GENERAL RESEARCH CORP MCLEAN VA MANAGEMENT SYSTEMS
DIV J I POSNER ET AL. 31 JUL 81 GRC-1165-02-81-CR

3/3

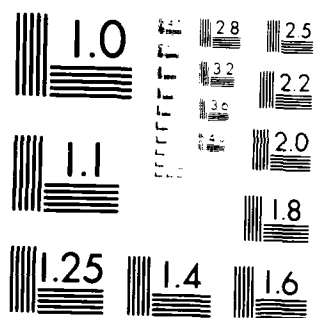
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MICROCOPY RESOLUTION TEST CHART
 NATIONAL BUREAU OF STANDARDS-1963-A

TABLE 12
SUMMARY - EXPANDED FIELD TEST POSITION IDENTIFICATION OUTCOMES

MACOM	TEST POSITIONS BY CURRENT ID		TEST POSITIONS BY TEST ID				
	CATEGORY	NUMBER	OFF	WO	ENL	CIV	DISAGREE
1	OFFICER	19	15			4	
	WARRANT OFF	10		1		9	1
	ENLISTED	12			8	3	1
	CIVILIAN	19	1			19	
	TEST POSITIONS BY TEST ID		16	1	8	33	
	*TEST POSITIONS BY CURRENT ID		19	9	11	19	
	CHANGE BY	NUMBER	-3	-8	-3	+14	
	CATEGORY	PERCENT	-16%	-88%	-27%	+74%	

MACOM	TEST POSITIONS BY CURRENT ID		TEST POSITIONS BY TEST ID				
	CATEGORY	NUMBER	OFF	WO	ENL	CIV	DISAGREE
2	OFFICER	19	6	1		10	2
	WARRANT OFF	10	1	4	1	4	
	ENLISTED	11			3	7	1
	CIVILIAN	19				19	
	TEST POSITIONS BY TEST ID		7	5	4	40	2
	*TEST POSITIONS BY CURRENT ID		17	10	10	19	
	CHANGE BY	NUMBER	-10	-5	-6	+21	
	CATEGORY	PERCENT	-59%	-50%	-60%	+111%	

MACOM	TEST POSITIONS BY CURRENT ID		TEST POSITIONS BY TEST ID				
	CATEGORY	NUMBER	OFF	WO	ENL	CIV	DISAGREE
3	OFFICER	21	16	1		4	
	WARRANT OFF	6	1	3		1	1
	ENLISTED	14			7	7	
	CIVILIAN	20				20	
	TEST POSITIONS BY TEST ID		17	4	7	32	1
	*TEST POSITIONS BY CURRENT ID		21	5	14	20	
	CHANGE BY	NUMBER	-4	-1	-7	+12	
	CATEGORY	PERCENT	-19%	-20%	-50%	+60%	

*Excludes positions on which there was disagreement.

TABLE 12 (Continued)

MACOM	TEST POSITIONS BY CURRENT ID		TEST POSITIONS BY TEST ID				
	CATEGORY	NUMBER	OFF	WO	ENL	CIV	DISAGREE
4	OFFICER	19	11			7	1
	WARRANT OFF	10		2		7	1
	ENLISTED	11			9	2	
	CIVILIAN	20				20	
	TEST POSITIONS BY TEST ID		11	2	9	36	2
	*TEST POSITIONS BY CURRENT ID		18	9	11	20	
	CHANGE BY	NUMBER	-7	-7	-2	+16	
	CATEGORY	PERCENT	-39%	-78%	-18%	+80%	
MACOM	TEST POSITIONS BY CURRENT ID		TEST POSITIONS BY TEST ID				
	CATEGORY	NUMBER	OFF	WO	ENL	CIV	DISAGREE
5	OFFICER	19	10			4	5
	WARRANT OFF	10	2	1	1	5	1
	ENLISTED	11			4	5	2
	CIVILIAN	20				19	1
	TEST POSITIONS BY TEST ID		12	1	5	33	9
	*TEST POSITIONS BY CURRENT ID		14	9	9	19	
	CHANGE BY	NUMBER	-2	-8	-4	+14	
	CATEGORY	PERCENT	-14%	-89%	-44%	+74%	
MACOM	TEST POSITIONS BY CURRENT ID		TEST POSITIONS BY TEST ID				
	CATEGORY	NUMBER	OFF	WO	ENL	CIV	DISAGREE
6	OFFICER	19	12			7	
	WARRANT OFF	2		1		1	
	ENLISTED	19		1	9	9	
	CIVILIAN	20				20	
	TEST POSITIONS BY TEST ID		12	2	9	37	0
	*TEST POSITIONS BY CURRENT ID		19	2	19	20	
	CHANGE BY	NUMBER	-7	0	-10	+17	
	CATEGORY	PERCENT	-37%	0%	-53%	+85%	

* Excludes positions on which there was disagreement.

TABLE 12 (Continued)

MACOM	TEST POSITIONS BY CURRENT ID		TEST POSITIONS BY TEST ID				
	CATEGORY	NUMBER	OFF	WO	ENL	CIV	DISAGREE
All	OFFICER	116	70	2		36	8
	WARRANT OFF	48	4	12	2	26	4
	ENLISTED	78		1	40	33	4
	CIVILIAN	118	1			116	1
	TEST POSITIONS BY TEST ID		75	15	42	211	17
	*TEST POSITIONS BY CURRENT ID		116	48	78	118	
	CHANGE BY	NUMBER	-41	-33	-36	+93	
	CATEGORY	PERCENT	-35%	-69%	-46%	+79%	

*Excludes positions on which there was disagreement.

SUMMARY

	<u>Number</u>	<u>Percent</u>
Consensus Positions	343	95.5 %
Non-Consensus Positions	16**	4.5 % **
TOTAL	359	100.0 %

**Excludes one position which was disqualified based on test results.

TABLE 13
FY1979 PRETRAINED CONTINGENCY/WARTIME AUGMENTATION

MTOE ^a	"LEVEL 1" REQUIRED	PEACETIME AUTHORIZED	AUGMENTATION INCREMENT
OFFICERS			
CATEGORY I	6,389	5,840	549
CATEGORY II	6,470	4,939	1,531
CATEGORY III	3,662	1,564	2,098
CATEGORY UNKNOWN ^b	21,382	18,542	2,840
SUBTOTAL	37,903	30,885	7,018
WARRANT OFFICERS			
CATEGORY I	1,432	1,354	78
CATEGORY II	2,185	1,808	377
CATEGORY III	317	231	86
CATEGORY UNKNOWN ^b	6,467	6,105	362
SUBTOTAL	10,401	9,498	903
ENLISTED			
CATEGORY I	97,744	94,399	3,345
CATEGORY II	81,947	72,630	9,317
CATEGORY III	28,285	21,238	7,047
CATEGORY UNKNOWN ^b	276,641	268,845	7,796
SUBTOTAL	484,617	457,112	27,505
OFFICERS/WARRANT OFFICERS/ENLISTED			
ALL CATEGORIES	532,921	497,495	35,426

^aTHE ARMY AUTHORIZATION DOCUMENTS SYSTEM (TAADS) DATA, FACTORED TO FORCE ACCOUNTING SYSTEM (FAS) MANPOWER LEVELS.

^bCATEGORY NOT CURRENTLY INDICATED IN AUTOMATED TAADS OUTPUT.

- "Rotation Base Requirements." (NOTE: Army active duty military strength outside the continental United States on 30 September 1981 is programmed at 306,165, or 39.4% of total active duty military strength of 777,036 programmed on that date.)¹
- "Career Progression Requirements."
- "No Qualified Civilians Available."
- Finally, the Army has emphasized its existing shortage of civilian personnel authorizations, and the Office of the Secretary of Defense has indicated: "...borrowed military manpower (BMM) and other troop diversions (personnel performing duties other than their normally assigned duties) have risen and are calculated to be in the 25,000 to 28,000 range.... In FY1981 the Army calculates it would need 10,000 additional civilian spaces to begin to replace this BMM and improve force readiness."²

Neither the time nor the resources are available under the current contract to independently and precisely assess the likely quantitative impact of these very significant manpower management and position identification constraints which were not applied in conducting the expanded field test. It is, however, the considered view of the GRC project team--which we believe is in large measure shared by the COTR staff--that the application of these constraints would substantially offset the relatively high rate of conversions from military to civilian position identity noted in the test results and summarized on Table 12. We believe, further, that:

- A prescreening of test positions, had it been conducted, and a more even balance of military and civilian testers (a group of 33 civilian and two commissioned officer testers was

¹Manpower Requirements Report for FY1982, Department of Defense, February 1981, p. XI-13.

²Ibid., p. III-22.

actually used) might have had a similar effect in offsetting the rate of military to civilian conversions.

- A broadening of the subfactors and weights used on Handbook Table 3-2 in defining the "Civilian/Military Mix Required" factor--selected by a relatively large number of testers as indicated in Tables 6 and 8 of this analysis--will have a similar ameliorating effect. (NOTE: Proposed revisions to achieve this objective have already been submitted to the COTR under separate cover.)
- An effective implementation and indoctrination program accompanying referral of the Handbook to field units for use, plus the understanding born of experience in its use over time following implementation, will bring further balance to the Handbook position identification decision process.

CONCLUSIONS

The tabulations of test results throughout this analysis demonstrate a consistently high level of consensus by testers in applying the Handbook methodology, and in reaching compatible position identification decisions.

The notably low tester error rate approximating 1% of all tester results produced by the test clearly demonstrates the relative simplicity and comprehension level of the definitions, techniques, and methods prescribed in the Handbook.

Reserve component-experienced manpower managers who participated in the test have assessed the probable level of applicability of the Handbook methodology to the Reserve Components and have formally advised the COTR of their agreement that these "procedures have application to the Army Reserve." In making their agreement known, they have emphasized the need for a thorough indoctrination program in position identification principles and factors upon implementation of the Handbook--a recurrent theme that the GRC project team has perceived and emphasized throughout

this analysis. That long-standing need flowing from the equally compelling need for an improved position identification methodology has been effectively recognized by the Army's leadership over the years, notably in.

- Chief of Staff Memorandum 76-570-62, dated 3 December 1976, which instituted a long-term initiative to: "Review and improve procedures whereby each position is defined as being filled most efficiently by either an officer, enlisted man, civilian, or civilian contractor." That mandate was the genesis of the current effort now reaching fruition.
- The Army section of the DOD Manpower Requirements Report for FY1982, which notes the ongoing Army initiatives to improve the manpower management process, and specifically cites to the Congress the current effort to develop improved position identification methods and techniques.¹

This continuing and explicit focus upon the need for improved methods and procedures, combined with the expanded field test outcomes reviewed in this analysis, confirms the applicability of the Handbook methodology to the current and future Army force structure.

RECOMMENDATION

It is recommended that:

- These test results and analyses be promptly presented to the SAG and ARSTAF authorities looking toward immediate implementation of the Position Identification Handbook at ARSTAF and field level.
- Concurrent with implementation, a broad and thorough indoctrination program should be developed and presented Army-wide to:

¹Ibid., p. III-7.

- Improve and enhance the understanding and level of expertise of Army manpower managers in carrying out their position identification responsibilities, generally.
- Assure, specifically, that the most effective and efficient use is made of the Position Identification Handbook as a key element in that improvement and enhancement process.

Enclosures (5): as stated

GENERAL RESEARCH



CORPORATION

7655 OLD SPRINGHOUSE ROAD
WESTGATE RESEARCH PARK
MCLEAN, VIRGINIA 22102
(703) 893-5900

1 October 1980

MEMORANDUM FOR: LTC J. W. Tastad
DAPE-MBU
Department of the Army
Washington, D.C. 20310

SUBJECT: Survey Administration

We suggest covering the following points for the upcoming Position Identification Factors Survey:

- DAPE-MBU request that hosts assure a supply of freshly sharpened No. 2 pencils and some scratch pads or paper for use by respondents. We understand survey sites provided by the hosts will be suitable for a "test" environment and not subject to itinerant pedestrian traffic.
- Five copies of the handbook should be available for reference at each test site should they be needed for unforeseen purposes or reference.
- Copies of ARs 570-4 and 310-49, together with MOS and SC manuals, all for possible reference.
- A brief introduction and outline of survey purpose should be presented at each session. We are finalizing an appropriate script (10 to 15 minutes).

for J. E. Posner
JACK I. POSNER
Associate Director
Management and Organization

Encl 1

BRIEFING SCRIPT

SURVEY TO VALIDATE POSITION DEFINITION FACTOR/SUBFACTOR VALUES

I am _____.

We are here today to obtain your insights in an effort to improve Army methods used in the delineation of Army positions as requiring a commissioned officer, warrant officer, enlisted member, or civilian.

By memorandum of 3 December 1976, the US Army Chief of Staff directed that the DCSPER: "Review and improve procedures whereby each position is defined as being filled most efficiently by either an officer, enlisted member, civilian, or civilian contractor." In carrying out that directive, GRC was selected to develop a quantitative methodology for position definition. The contract covering this work called for achievement of the following objective:

"The purpose of this study is to devise an improved quantitative methodology for establishing each position in the Army's structure properly as commissioned officer, warrant officer, enlisted, or civilian."

Under the terms of the agreement, the work of the study group was limited to:

- "...the active Army as opposed to Reserve and National Guard components and shall include all active Army and DA civilian employee positions."
- "...military and civilian (including foreign national civilian direct and indirect hire) positions in the active Army... but specifically excluding contractor and nonappropriated fund functions, resources or positions in the Army structure."

The position identification method was developed and is detailed in the draft Position Identification Handbook. As you know, the method depends upon the use of concisely defined position definition factors and subfactors. At least one important concept prescribed for application within each military department by the Office of the Secretary of Defense should be understood.

DOD Directive 1400.5 specifies that "civilian employees shall be utilized in all positions which do not require military incumbents for reasons" specifically defined in the directives and regulations of the several departments.

The factors you will address today have been developed based upon the content of those directives and regulations. The purpose of those factors is to:

- Identify and define the reasons why a given position should or should not be military.
- If delineated as military, identify and define the proper military category--that is, commissioned officer, warrant officer, or enlisted member.

The handbook uses decision logic tables and a step-by-step quantitative procedure to guide the manpower technician to the right decision. Certain of these decision logic tables use point scoring. Our primary purpose here today is to collect data that will assist in the assignment and validation of accurate weights to these point scoring tables by asking you to evaluate and rank order the factors in terms of your view of their relative importance on that position identification process.

Our objective at this point is to obtain your individual assessments of the accuracy of those numerical scores. In point of fact, we'd like to start from scratch to determine how you would score the RELATIVE IMPORTANCE OF EACH FACTOR. The same question is being asked of other selected groups of experts and experienced people. Our analysis of the

responses of all the groups should result in adjustments to our original scores. The adjusted scores should be highly accurate and will be used in the final handbook when published and distributed to the field.

A secondary purpose is to conduct exchanges with groups of experienced and expert managers like yourselves in order to refine the content of the Position Identification Handbook before it is implemented Army-wide.

The survey you have before you contains each of the factors from each of the tables which used numerical scores. These are exactly the same factors found in the Position Identification Handbook and in the tables we have been discussing.

Are there any questions?

At this time we'd like you to fill out the block on the front of the survey entitled RESPONDENT INFORMATION. If you have had an opportunity to read the draft handbook, please so indicate where required on the form. Although it's not imperative to have read the handbook, we would like that information anyway since it will help in our analysis of the more than 100 responses to this survey.

Having done that, please open the survey book and read the instructions to the respondent.

[Pause for 20 seconds]

Before going on to Part A, please note that you should feel free to change your answers at any time during the evaluation.

Are there any questions before we go on to Part A?

This survey is in three parts. Part A covers the ranking of factors which pertain to distinguishing between military and civilian

duties. Part B asks for a ranking of those factors which differentiate between officer and enlisted duties. The last part, C, addresses the factor differences of warrant and commissioned officer duties.

The instructions for completion of Parts B and C are essentially the same as those for Part A.

Go ahead and read the instructions in Part A, and if you have questions, please raise your hand and we'll answer them.

You may continue to work through the survey at your own pace and, once again, feel free to go back to parts you have already completed or change your answers at any time. The more sure you are of your ranking of the factors, the more useful the handbook will become.

Now that you have completed the survey, we will collect the booklets, spend a few minutes answering your questions about the Handbook procedure, and take comments you may have about means that can improve its content and quality.

GENERAL RESEARCH



CORPORATION

7655 OLD SPRINGHOUSE ROAD
WESTGATE RESEARCH PARK
MCLEAN, VIRGINIA 22102
(703) 893-5900

19 November 1980

MEMORANDUM TO: Colonel O. A. Massey
Contracting Officer's Representative
DAPE-MBU
Department of the Army
Washington, D.C. 20310

SUBJECT: Analysis of the Survey of Position Identification
Subfactors (Contract MDA903-80-C-0324)

We recommended in our survey analysis plan (Enclosure 1) that 125 respondents be surveyed. This allowed a 20% loss rate due to absenteeism and other conditions. A minimum sample size of 100 valid surveys was required. A total of 105 valid surveys were completed.

- Only 121 rather than 125 respondents completed surveys. Cause: absenteeism.

- Visual inspection revealed six surveys were either largely incomplete, erroneously completed, or prepared by disqualifiable respondents. They were rejected and are referenced herein as Category III surveys.

- Initial analysis of scoring trends and respondent comment in 10 additional surveys indicated gross lack of understanding of survey instructions and objectives, or apparent individual bias so severe as to warrant disqualification (i.e., respondent scores indicated there should be no civilian positions in the Army, or no enlisted positions in the Army, or used a consecutive numbering scheme having no apparent relationship to the rank ordering of subfactors). They were rejected and are referenced herein as Category II surveys. While Category II survey data have been separately analyzed, they were not considered in reaching our final conclusions on factor/subfactor/score revisions predicated upon valid (Category I) survey results.

- Examination of the 105 remaining surveys revealed errors and omissions warranting disqualification of responses on selected subfactors. No apparent pattern emerged in these errors and omissions. While these individual responses on selected subfactors were rejected, the remaining responses in all 105 valid surveys have been used in reaching our final conclusions on factor/subfactor/score revisions predicated upon survey results.

D-54

Encl 3

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19 November 1980

Our minimum sample size of 100 valid surveys has, accordingly, been achieved. Our recommended factor/subfactor/score revisions to the Position Identification Handbook predicated upon valid survey results are set forth in Enclosure 2, which consists of the four parts described below. Enclosure 2 is intended as a quick reference synthesis of the detailed analysis contained in subsequent Enclosure 3, and it should be read in that context.

- Part 1: Recommended changes in the narrative definitions of the following factors, and in the subfactors and scores associated with them, now appearing in the Position Identification Handbook:

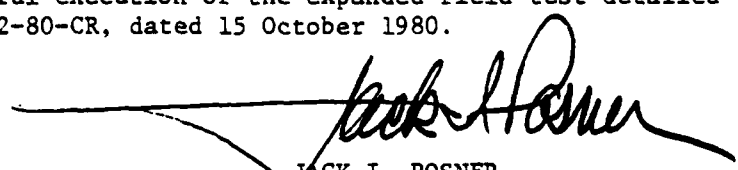
- TRADITION OR CUSTOM
- AUTHORITY AND DISCIPLINE

- Part 2: Recommended changes in subfactor alignment and point scores for each factor appearing in Table 3-2, Point Score Identification of Military and Civilian Positions, in the Position Identification Handbook.

- Part 3: Recommended changes in subfactor alignment and point scores for each factor appearing in Table 3-4, Point Score Identification of Officer and Enlisted Positions, in the Position Identification Handbook.

- Part 4: Recommended changes in subfactor alignment and point scores for each factor appearing in Table 3-5, Point Score Identification of Commissioned Officer and Warrant Officer Positions, in the Position Identification Handbook.

Note that the results of the recommendations in Part 1, above, are incorporated in the recommended table revisions appearing in Part 2. Note, further, that immediately upon receiving the concurrence of the COR, we are prepared to furnish an appropriately revised Position Identification Handbook incorporating all of the revisions recommended in Parts 1 through 4. To expedite that coordination and concurrence process, we have taken the liberty of furnishing a copy of this memorandum to Dr. Gilbert, HQDA(PERI-IL). As you are aware, the revision of the Position Identification Handbook predicated upon survey results is a condition precedent to successful execution of the expanded field test detailed in our Report 1165-02-80-CR, dated 15 October 1980.



JACK I. POSNER
Associate Director
Management and Organization

Enclosures: as stated W/D

PROCEDURE FOR DETERMINING

SURVEY POINT SCORE

- RESPONDENTS SCORED SUBFACTORS ON THE THREE SCALES (MILITARINESS, OFFICERSHIP, OR COMMISSIONED)
- INDIVIDUAL RESPONSES WERE CONVERTED TO NUMERIC POINT SCORES BY THE FORMULA SHOWN IN THE 29 AUGUST PROPOSED ANALYSIS
- AGGREGATE SUBFACTOR POINT SCORES WERE STATISTICALLY ANALYZED TO DETERMINE AVERAGE SCORE

GRC

TRADITION OR CUSTOM

IMA positions which, by tradition or custom, have been filled by military personnel. Military identification of these positions may contribute essential "esprit" to military organizations. Or it may be a viable aspect of the position essential to the execution of the job. While other factors or subfactors listed in this Handbook may also apply to the following positions, they are examples of jobs which by tradition or custom are designated for military incumbency:

- Aide, officer and enlisted.
- Provost marshal.
- Inspector General.
- US Military Academy (USMA) professor and instructor as designated by Superintendent, USMA.
- Secretary of service schools and colleges.
- Command sergeant major.
- First sergeant.
- Band leader.
- Band member.
- Recruiter and military career counselor.
- Drill sergeant.
- Chapel activities specialist.
- Company level supply sergeant and company clerk.
- Honor guard.

TRADITION OR CUSTOM SUBFACTORS

- Provide required military presence or the effectiveness of the position will be materially compromised.
- Provide a military presence materially contributing to the effective discharge of tasks, or the maintenance of military esprit.
- Supervise or perform work in a military organization

Survey Point Score	CRC Estimated Point Score	Above 120		Below 120	
		Survey	CRC	Survey	CRC
480	120	X	X		
456	60	X			X
408	24	X			X

FACTOR

KNOWLEDGE

DEFINITION

The amount and kind of information necessary to the performance of acceptable work and the extent of the skills needed to apply that knowledge. The necessary information may be steps, procedures, practices, rules, policies, theories, principles, or concepts.

KNOWLEDGE SUBFACTORS

- Advanced degree required.
- Mastery of professional field to generate and develop new hypotheses and theories.
- Knowledge of a wide range of concepts, principles, and practices in a professional occupation.
- Knowledge of an extensive body of regulations on a wide variety of functions.
- Knowledge of basic operations which require some previous training.
- Broad knowledge of military operations and subjects.

Survey Point Score	GRC Estimated Point Score	Above 3rd Survey GRC	Below 3rd Survey GRC
366	750	X	
372	450	X	
270	300		X
87	90		X
48	60		X
99	30		X

Subfactor	Ratio	50 - 50
ADVANCED	500	560
MASTERY	500	410
WIDE	370	290
EXTENSIVE	120	90
BROAD	130	70
BASIC	70	50

NARRATIVE

Survey respondents agreed with the rank ordering of the subfactors, except for "Broad Knowledge of Military Operations and Subjects," which was scored higher by the survey. The GRC analysis team agrees that "Basic Knowledge" should rank below "Broad Knowledge." Application of the 50-50 procedure produced the scores shown above, right, which alters the rank order as included in the below recommended changes to the Handbook.

KNOWLEDGE	Knowledge of Basic Operations with Specific Knowledge Training	Broad Knowledge of Military Operations and Subjects	Knowledge of an Extensive Body of Regulations or a Wide Variety of Functions	Knowledge of a Wide Range of Concepts, Principles and Practices in a Professional Occupation	Mastery of a Professional Field to Generate and Develop New Hypotheses and Theories	Advanced Degree Required
	50	70	90	290	410	560

• The first method is a ratio procedure. This procedure is carried out in five steps and involved compilation of all subfactor scores within a factor. The following is an example of the ratio procedure, based upon survey responses for the "KNOWLEDGE" factor on the "officership" scale.

(1) Total survey point scores for all subfactors within the factor:

366
372
270
87
48
99
Total "A" 1242

(2) Total Handbook point scores for all subfactors within the factor:

750
450
300
90
60
30
Total "B" 1680

(3) Divide Total "B" by Total "A"

$1680/1242 = 1.353$ ratio

(4) Multiply survey point scores for each factor by the desired ratio:

$1.353 \times 366 = 495$
$1.353 \times 372 = 503$
$1.353 \times 270 = 365$
$1.353 \times 87 = 118$
$1.353 \times 48 = 70$
$1.353 \times 99 = 130$

(5) Round off scores ± 5 :

495
505
365
120
70
130

- The second method may be called a 50-50 procedure. The following is an example of the 50-50 procedure

Factor	Subfactor
"SECURITY" "Secure nuclear weapons and command posts"	
Survey score	1096
Handbook score	300
Total	<u>1396</u> ÷ 2 = 698
Round off score ± 5	= 700

The 50-50 procedure is preferred over the ratio procedure since it addresses point scores independently by subfactor. The ratio procedure includes scores of all subfactors in a factor which may cause the score of one subfactor within a factor to impact on the score of another. The 50-50 procedure also makes explicit use of both survey respondents and previous GRC/SAC judgments as to reasonable subfactor scores. The procedure considers both sets of judgments as equally important for arriving at a final set of subfactor scores prior to the field test of the Handbook.

INTELLIGENCE

- IMA positions dedicated to intelligence tasks which, if not performed, could effectively cause immediate and direct impairment of combat capability. Examples of these are the following:
- Positions assigned to the selection and prioritization of requirements and allocation of resources.
- Positions assigned to correlate, analyze and direct collection programs.
- Positions required to develop focused intelligence summaries, devise techniques, perform intelligence tasks, and control the dissemination of intelligence information.

INTELLIGENCE SUBFACTORS

- Select and prioritize requirements; allocate resources.
- Correlate and analyze.
- Direct operational program.
- Devise techniques; perform tasks.
- Prepare focused summaries.
- Control dissemination.

Survey Point Score	GRC Estimated Point Score	Above /10		Below /20	
		Survey	UNC	Survey	UNC
120	400	X	X		
76	300		X	X	
132	240	X	X		
108	200		X	X	
90	171		X	X	
90	120		X	X	

Subfactor	Ratio	50 - 50
DIRECT	310	130
SELECT	280	120
DEVISE	250	110
PREPARE	210	90
CONTROL	210	90
CORRELATE	180	80

NARRATIVE

The MACOM Narrative comments concerning factor and subfactor completeness and relative importance included indications that the GRC point scores for "Intelligence" are too high. The results of the survey support this contention in all 6 subfactors, and reflect a change in rank order. Application of the 50-50 procedure produced revised point scores and rank ordering shown above, right, and recommended below for changes to the Handbook.

Survey Revision

INTELLIGENCE	CORRELATE ANALYSIS	CONTROL DISSEMINATION	PREPARE FOCUSED SUMMARIES	DEVISE TECHNIQUES PERFORM TASKS	SELECT/PRIORITIZE REQUIREMENTS; ALLOCATE RESOURCES	DIRECT OPERATIONAL PROGRAM
	80X %	90X %	90X %	110X %	120X %	130X %

Handbook Scores

INTELLIGENCE	CORRELATE ANALYSIS	CONTROL DISSEMINATION	PREPARE FOCUSED SUMMARIES	DEVISE TECHNIQUES PERFORM TASKS	DIRECT OPERATIONAL PROGRAM	SELECT/PRIORITIZE REQUIREMENTS; ALLOCATE RESOURCES
	120X %	171X %	200X %	240X %	300X %	400X %

CURRENT MILITARY BACKGROUND AND TRAINING REQUIRED

Examples are:

- Positions assigned to direct planning; management; military systems maintenance, test, or evaluation; and weapons development. Also, other comparable indirect combat support activities in which sub-stantive and recent military experience is necessary to insure that programs are directed toward essential military requirements.
- Positions for personnel assigned as trainers conducting essential military training based on their own military training. Practical military experience, and current military doctrine.
- Positions that require training in explosive ordnance disposal, special weapons controller, and Special Forces aidman. Also other comparable combat support and combat service support-type functions, training for which is not normally available to or appropriate for civilian personnel.

CURRENT MILITARY BACKGROUND AND TRAINING REQUIRED SUBFACTORS

- Define military requirements.
- Evaluate doctrine and tactics.
- Determine operational suitability.
- Test operational capability.
- Tactical training of troops in the field.
- Classroom and technical training

GRC	Survey Point Score	Estimated Point Score	Above 120	Below 120
	456	300	X	
	408	240	X	
	456	171	X	
	360	150	X	
	1463	133	X	
	312	129	X	

Subfactor	Ratio	50 - 50
TACTICAL	490	800
DEFINE	150	380
EVALUATE	140	320
DETERMINE	150	300
TEST	120	260
CLASSROOM	100	60

NARRATIVE

Y 62

The extremely high survey point score for the subfactor "Train Troops" (1463) and the comparatively low survey point score for "Teach Doctrine and Tactics" caused a separate analysis of the 2 subfactors in terms of possible interpretation or misinterpretation. Results of this analysis are changes in title of the two subfactors to "Tactical Training of Troops in the Field" (for Train Troops) and "Classroom and Technical Training" (for Teach Doctrine and Tactics). Application of the 50-50 procedure produced the revised scores and rank order shown above, right, and recommended for change to the Handbook as shown below.

Survey Revision

CURRENT MILITARY BACKGROUND/TRAINING REQUIRED	CLASSROOM AND TECHNICAL TRAINING	TEST OPERATIONAL CAPABILITY	DETERMINE OPERATIONAL CAPABILITY	EVALUATE DOCTRINE AND TACTICS	DEFINE MILITARY REQUIREMENTS	TACTICAL TRAINING OF TROOPS IN THE FIELD
60X %	260X %	300X	320X %	380X %	800X %	%

Handbook Scores

CURRENT MILITARY BACKGROUND/TRAINING REQUIRED	TEACH DOCTRINE AND TACTICS	TRAIN TROOPS	TEST OPERATIONAL CAPABILITY	DETERMINE OPERATIONAL CAPABILITY	EVALUATE DOCTRINE AND TACTICS	DEFINE MILITARY REQUIREMENTS
120X %	133X %	150X	171X %	240X %	300X %	%

* Survey Revised Definition

All positions in a TDA organization are responsible for the execution of assigned tasks. Some of these positions are traditionally or customarily filled by military personnel, including the following:

Handbook Definition

TDA positions which, by tradition or custom, have been filled by military personnel. Military identification of these positions may contribute essential "esprit" to military organizations. Or it may be a visible aspect of the position essential to the execution of the job. While other factors or subfactors listed in this Handbook may also apply to the following positions, they are examples of jobs which by tradition or custom are designated for military incumbency:

- Aide, officer and enlisted.
- Provost marshal.
- Inspector general.
- US Military Academy (USMA) professor and instructor as designated by Superintendent, USMA.
- Secretary of service schools and colleges.
- Command sergeant major.
- First sergeant.
- Band leader.
- Band member.
- Recruiter and military career counselor.
- Drill sergeant.
- Chapel activities specialist.
- Company level supply sergeant and company clerk.
- Honor guard.

* Survey Revised Definition

Military identification of the positions listed above may contribute essential "esprit" to military organizations, or military identification may be a visible aspect of the position essential to the execution of the job. Other positions in the organization, though just as responsible for the execution of assigned tasks, are not materially affected by Army custom or tradition.

TRADITION OR CUSTOM SUBFACTORS

- Provide required military presence or the effectiveness of the position will be materially compromised.
- Provide a military presence materially contributing to the effective discharge of tasks, or the maintenance of military esprit.
- Supervise or perform work in a military organization

* Survey Revised Subfactor

- Execute tasks in an organization.

NARRATIVE

SEE SEPARATE ANALYSIS IN PART 1

Survey Point Score	Estimated Point Score	Above 120		Below 120	
		Survey	GRC	Survey	GRC
480	120	X	X		
456	60	X			X
408	24	X			X

Survey Revision	TRADITION AND/OR CUSTOM	24X %	60X %	300X %	120X %
Handbook Scores	TRADITION AND/OR CUSTOM	24X %	60X %	300X %	120X %

DA positions which require the incumbent to exercise direct military authority over military subordinates under the Uniform Code of Military Justice (UCMJ). The exercise of direct military authority and the maintenance of morale and discipline in the armed services is a function of the military leader (regardless of grade) acting on behalf of the military commander or on his own recognition. Civilian supervision of military personnel does not include command or direct military authority. These are not functions of DA civilians. However, supervision of military personnel does not, in and of itself, justify not require a military supervisor.

AUTHORITY AND DISCIPLINE SUBFACTORS

- Exercise direct 24-hour independent responsibility for military authority and discipline.
- Maintain military morale through personal leadership.
- Supervise work.

Survey Point Score	Estimated Point Score	GRC
1411	120	
360	60	
137	24	

✱

**Survey
Revised
Definition**

There are both military and civilian supervisory positions in DA organizations. Some of these supervisory positions require the exercise of direct military authority over military subordinates under the Uniform Code of Military Justice (UCMJ). The exercise of direct military authority and the maintenance of morale and discipline in the armed services is a function of the military leader (regardless of grade) acting on behalf of the military commander or on his/her own responsibility. However, supervision of military personnel does not, in and of itself, justify or require a military supervisor. A civilian supervisor may perform this function. Civilian supervision of military personnel has not included command or direct military authority since these are not functions of DA civilians.

MANAGERIAL

SEE SEPARATE ANALYSIS IN PART 1

SURVEY REVISION		4		5	
AUTHORITY AND DISCIPLINE	SUPERVISOR WORK	MAINTAIN MILITARY MORALE THROUGHOUT MILITARY LEADERSHIP	STRENGTH DIRECT 24 HOUR INDEPENDENT AUTHORITY FOR MILITARY AUTHORITY AND DISCIPLINE	AUTHORITY AND DISCIPLINE	SUPERVISOR WORK
	24X %	240X %	1130X %		24X %

23 December 1980

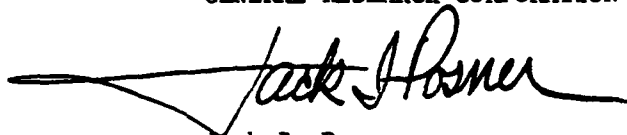
MEMORANDUM FOR: Colonel O. A. Massey
Contracting Officer's Representative
DAPE-MBU
Department of the Army
Washington, D.C. 20310

SUBJECT: Final Draft Position Identification Handbook
(Contract MDA903-80-C-0324)

Attached please find 20 copies of the draft of subject document
approved by the Study Advisory Group and your office on 9 December 1980.

Sincerely,

GENERAL RESEARCH CORPORATION



Jack I. Posner
Associate Director
Management and Organization

Encl 5

D-65

APPENDIX E

SPECIAL ANALYSIS ITEM - EXPANDED FIELD TEST

GENERAL RESEARCH



CORPORATION

7655 OLD SPRINGHOUSE ROAD
WESTGATE RESEARCH PARK
MCLEAN, VIRGINIA 22102
(703) 893 5900

30 June 1981

MEMORANDUM FOR: Lieutenant Colonel Jerome Tastad
Contracting Officer's Technical Representative
DAPE-MBU
Department of the Army
Washington, D.C. 20310

SUBJECT: Special Report - Quantitative Procedure for Position
Identity Definition (Contract No. MDA903-80-C-0324)

In accordance with your request, the attached tabulation is furnished in response to a question posed by a member of the Study Advisory Group at the meeting convened on 24 June 1981.

As a matter of interest, rule (2), Table 3-1, was selected on a total of six positions, other than those listed on the attachment, by individual testers not in consensus with the other members of their tester team with respect to that particular rule. In each such case, the nonconsensus tester was part of a three-tester team; and there was consensus on each position concerned on at least one rule other than (2) on Table 3-1.

GENERAL RESEARCH CORPORATION

Jack I. Posner
Associate Director
Management and Operations

Attachment: as stated

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E-3

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TABLE 11
EXPANDED FIELD TEST POSITION IDENTIFICATION HANDBOOK
CONSENSUS BY POSITION OR RULE (P) - MORALE, WELFARE, AND RECREATION (MWR) ACTIVITIES

Position Number	Tester Consensus on Rule (P)		Other Rules Applied By Consensus Testers	Existing Position Identification	Tester Position Identification
	Three out of three	Two out of two			
002	X		(m), (n)	Civilian	Civilian
022		X	none	Civilian	Civilian
044	X		(m), (n)	Civilian	Civilian
061	X		(m), (n)	Comm. Officer	Civilian
102	X		(m), (n), (o)	Civilian	Civilian
104		X	(m), (o)	Civilian	Civilian
116		X	(m), (n)	Civilian	Civilian
171	X		(m), (n)	Civilian	Civilian
173	X		(m), (n)	Civilian	Civilian
216		X	(m)	Civilian	Civilian
217		X	(m)	Civilian	Civilian
222		X	(m)	Civilian	Civilian
240		X	(k), (n), (o)	Comm. Officer	Comm. Officer
272		X	(m), (n), (o)	Civilian	Civilian
281		X	none	Civilian	Civilian
288		X	(m), (n)	Comm. Officer	Civilian
292		X	none	Civilian	Civilian
309	X		(m), (n), (o)	Civilian	Civilian
326	X		(m), (o)	Civilian	Civilian
338	X		(m)	Civilian	Civilian
365	X		(m), (n)	Civilian	Civilian

Recapitulation		Number of Positions
Test Outcome		
• Confirmed Civilian Identity		18
• Confirmed Comm. Officer Identity		1
• Converted Comm. Officer to Civilian		2
Total		21

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2-83